THE JOURNAL

OF THE

American Medical Association.

CONTAINING

THE OFFICIAL RECORD OF ITS PROCEEDINGS,

AND THE

REPORTS AND PAPERS PRESENTED IN THE SEVERAL SECTIONS

EDITED FOR THE ASSOCIATION BY N S DAVIS, M D, LL D

ASSISTED BY WM G EGGLESTON, M A, M D

VOLUME V

1885

CHICAGO
PRINTED AT THE OFFICE OF THE ASSOCIATION
1885

"The American Medical Association, though formerly accepting and publishing the reports of the various Standing Committees (and Sections), holds itself wholly irresponsible for the opinions, theories, or criticisms therein contained, except otherwise decided by special resolution"—TRANSACTIONS, 1851

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol V Chicago, July 4, 1885 No 1

ORIGINAL ARTICLES

HYDATID TUMORS IN THE BRAIN[1]

BY K HARVEY REED, M D,
OF MANSFIELD OHIO

By the term hydatid tumors in the brain, we mean the intra-cranial occurrence of either the echinococcus or the cysticercus cellulosæ in man The former is the embryo of the tænia echinococcus which has never been known to attain maturity except in the dog The latter is the embryo of the tænia solium, which is most frequently found in man, the hog, and the rabbit, but not unfrequently in the dog and the common rat, and has been known to exist in the ape, the bear, and the deer

The history of these strange parasites is only traceable to the oblivion of the unknown, before the time of Aristotle they were known to be associated with hydatid tumors, and were so regarded by Hippocrates, although it was left for Pallas to describe the echinococcus as a separate parasite, in 1766, and for Goze to observe the same of the cysticercus in 1784

The Mosaic law, which denounced as unclean all those animals which split the hoof and did not chew the cud, or those which chew the cud and did not split the hoof, was undoubtedly based on the existence of these parasites, for it is a well known fact that the hog, and a species of hare common in the east, were particularly rife with the disease produced by these parasites Nor were all the animals considered clean by the Mosaic law even free from this loathsome disease, for we find, on referring to the older works on sheep husbandry, the same disease treated of, under the synonyms of "turnstick," "sturdy," and "staggers," and more recently as "hydatid polycephalis cerebrais," which proved to be very fatal in the flocks where it prevailed, and was described as a many-headed hydatid, each of which was mounted with a disk of sharp hooklets The development of these parasites from the tape worm through all their multiple metamorphoses until again a tapeworm, was for a long time enshrouded in mystery, and it was not until comparatively recently that all the links in the chain were finally united

In order that our subject proper may be better understood we will give but a brief outline of the development of these tæniæ, which, during a certain stage of their development, may form cysts in the brain, or its membranes, of man From Kuchenmeister, the eminent German authority, we have crystalized the following

Division A —Tænia echinococcus 1 Is found only in the dog, has but four joints, the last of which contains the genital organs, and also the ripe eggs 2 When these eggs find their way into the stomach of man they migrate, as soon as germination takes place, through the system and there develop the echinococcus which first form the so called mother, or brood cysts 3 These mother or brood cysts may develop as follows (*a*) The scolices or heads, directly from the mother cysts, when they are called echinococcus scoliciparіens, and is frequently known under the name of E veterinorum, owing to its frequent occurrence in the domestic animals, and is distinguished from the fact of its having from 28 to 36 hooklets (*b*) The mother cysts may develop daughter cysts or even granddaughter cysts, and from either of these latter cysts may develop the scolices, in which case they are called the E altricipariens, and from their frequent occurrence in man they are also known as the E hominis, and can be distinguished by the fact of their having from 46 to 52 hooklets (*c*) The mother cysts may develop scolices externally, as is generally the case in animals, and from this fact they have received the name of exogens (*d*) Or the mother cysts may develop scolices internally as is most frequently the case in man, when they are termed endogens (*e*) Lastly, the mother cysts may not develop scolices at all, when they are known as acephalocysts

When these cysts or their scolices find their way into the stomach of the dog they develop into the tænia echinococcus, but should they find their way into the stomach of any other animal they will not reach maturity, although the embryo in the form of hydatid cysts will develop in man, as well as others of the animal kingdom, and will live in this embryonic state for years, or until it destroys the life of its host, yet it has only been known to reach maturity when eaten by the dog

Division B —Tænia solium 1 It is found in man and the hog, and when matured gives off proglottides or the so called joints, which, like the last segment of the tape-worm of the dog, contains the genital organs and the matured eggs 2 These entire segments, or only a part of the eggs, may find their way into the stomach from which, in an embryonic state, they migrate into the system, and there develop into the cysticercus cellulosæ, which passes through a series of metamorphoses similar to that of the echinococcus

---

[1] Read in the Section of Practical Medicine Materia Medica and Physiology at the Thirty Sixth Annual Meeting of the American Medical Association

The so-called "measly" pork owes its peculiarities to the presence of these cysticerci, which, when eaten by man or other animals, will develop into a tænia solium, or tape-worm Although we have two distinct species of tænia which give rise to hydatid tumors, and furnish a wide field for study, yet we do not think a special study of either, except so far as they interest us clinically, is within the province of this paper, and would respectfully refer those who care to look up the subject in detail, to Kuchenmeister or Leuckart From a clinical standpoint it matters but little which species is producing the intrusion on the economy, the results to the patients are the same

It is true, as a rule, that the cysts or hydated tumors produced by the echinococcus are larger than those produced by the cysticerci, yet the latter make up for the deficiency in size by multiplicity in numbers When hydatid tumors are opened and their contents examined with the microscope they may be found to contain complete scolices or just the scattered hooklets of broken and incomplete heads When scolices cannot be found free in the liquid of the cyst, they may be found by examining the brood capsule, or lining membrane of the same, except in the case of acephalocysts when no scolices or isolated hooklets can be found These hydatid tumors contain a pale straw-colored fluid which usually contains no albumen, is freely charged with chloride of sodium, and contains a liberal quantity of succinic acid, which is not unfrequently found combined with lime or soda, also, traces of grape sugar, together with other chemicals, are generally found present

Hydated cysts of one or the other of these tænia have been found in almost all parts of the human economy, but especially in the liver, the cellular tissue, the brain, the spinal cord, the eye, the spleen, the lungs, kidney, supra-renal capsules, heart, and even in the osseous system

Kuchenmeister, who collected 88 cases of cysticercus of the brain, found the cysts 49 times in the membranes, six of which were on the dura mater, 11 on the arachnoid, 23 on the pia mater, and 9 on the choroid plexus Fifty-nine on the surface of the cerebrum, 41 in the cortical substance, 19 in the white substance, 18 in the ventricles and aqueduct, 17 in the corpora striata and anterior commissure, 15 in the optic thalami and gray commissure, 4 in the corpora quadrigemina and the pineal gland, twice each in the trigona olfactoria, corpus callosum and medulla oblongata once in the olivary body, and 18 times in the cerebellum In the above, 18 per cent were without any symptoms, in 6 they were only trifling, in 5 epilepsy alone was present, in 4 epilepsy with mental debility, in 15 epilepsy with paralytic symptoms, in 24 insanity without epilepsy, of which 7 were without motor or sensory disturbances, 17 had lameness, cramps, hemiplegia, paralysis and muscular twitchings, while out of all only 24 had epilepsy

The size and growth of these hydatid tumors varies according to the space afforded them for development It seems that their size depends more on the pliability of the tissues, rather than the quantity and quality of the nourishment furnished The danger attending the presence of these hydatid tumors depends very much on their location and size When they occur in the subcutaneous cellular tissue it is not attended with any great danger I know of a young man who is under the care of my friend Dr J W Craig, in whom they can be counted by the hundreds, notwithstanding the doctor has cut out several scores already, and yet the young man is apparently in good health When they occur in the muscular tissue they become more and more injurious in proportion to their depth and the importance of the structures involved Their occurrence in the anterior chamber of the eye may not occasion any grave symptoms, but when they occur in the posterior chamber, the vitreous, the retina, or under the retina, as observed by Sommering, Schott, von Graefe, Mackenzie, Baum, Esthlin Sickel, and others, they produce the most serious trouble When they locate themselves in the brain or its membranes, they occasion a multitude of symptoms, which are modified by their location, as will be best observed in the cases I am about to report in this paper, and which, it will be readily observed, renders the diagnosis exceedingly difficult and obscure

Case I —Dr B , æt 46, a large, strong hearty man, who was engaged as a traveling doctor, was taken ill in the summer of 1880, at first was easily fatigued, mentally and physically, but able to be up and around and practice his profession, which was soon *followed with general malaise, which gradually grew* worse until he had lost all inclination for business, this was followed by gradually increasing vertigo, could not sit upright long at a time, which became so bad as to almost disable him from walking across the room, or sitting up at all when he attempted to walk would pitch forward on the face As the disease grew worse he was taken with vomiting, with or without food, which assumed a reflex character From the first there was a constant tendency for the head to drop forwards, and toward the last, when not lying down, would sit with the head dropped forward, which tendency manifested itself even when lying down He was extremely nervous, and toward the last his appetite, which had gradually failed him from the first, failed entirely, except that he had an incessant desire to drink milk, which was immediately vomited after entering the stomach The bowels were regular and urine normal There was a gradually increasing stupor, with some mental aberration toward the last, which continued, together with an increase of all the other symptoms, until the patient died from collapse March 3d, 1881 The post mortem revealed sclerosis of the gray portion of the brain, with softening in the right cerebellum and in both ventricles In the right lateral ventricle was found a hydatid tumor the size of the first joint of a man's thumb, which was surrounded with some pus and considerable effusion

Case II —J W K , æt 28, a strong, hearty laborer, was taken sick in spring of 1879 with pain in the left side No difficulty with the hearing, complained of trouble from coughing with pain in the chest , partial paralysis of right arm In February, 1881 had a similar attack , also one in 1882, which was followed with another in December, 1883, when he commenced to have an offensive discharge from the left nostril In May (23d), 1884, he was taken with a chill, followed with pain in the left side of the head Had a troublesome cough of a nervous character , appetite good, which continued to the l ith no vomiting , bowels regular , no alteration of the ture, but some nervous excitability of the pulse, which rise above or drop below the normal, and in a shc to the normal again Would often complain of the top or left side of his head Was troubled diplopia, and flashes of light in l h eyes Had do manual labor, however, between each of the other attacks, and even up to the commencement of this last attack, at which time he had an exaggeration of all the former symptoms excepting the paralysis but more especially the pulmonary symptoms, which gave rise to coughing and dyspnœa These symptoms increased until he died from general exhaustion June 1st, 1884 Assisted by Dr J Harvey Craig I made a post mortem five hours after death, and found a large hydatid tumor located in the left lateral ventricle, nearly as large as a hulled white walnut There was considerable effusion, with softening and destruction of the brain substance on the left side, and thickening of the membranes of the cerebellum and spinal cord, with here and there spots entirely destroyed by softening An examination of the rest of the body revealed nothing of an abnormal character

CASE III —O H B , æt 52, a strong, robust man, was accustomed to doing considerable mental and physical labor Commenced complaining in the spring of 1882, with general debility accompanied with some dyspnœa and difficulty in deglutition, but had no trouble digesting his food after getting it swallowed , bowels were normal, and urine natural at first, but contained some albumen toward the last Was advised to take a trip for his health, but returned feeling worse , both the asthmatic symptoms and the difficulty in swallowing were much worse His gait became unsteady and staggering, but no paralysis, and mind clear and no tendency to spasms These symptoms gradually became worse until the patient died of exhaustion December 30, 1883 The post mortem showed evidence of athoromatous degeneration of the cerebral arteries, more especially those in the circle of Willis, but little effusion Two hydatid tumors were found in the right lateral ventricle, and three in the left lateral ventricle, varying in size from a grape down to that of a pea

CASE IV —Mrs McS , æt 57, an ordinarily healthy female, had been married and raised a family, but was now a widow , had "changed life" at the age of 50 Had not been feeling well for some time, but commenced to grow worse in 1877, when she was very much debilitated , some mental aberration, among the first of which was that of imagining she smelt the fumes of a tobacco pipe She next became contrary in almost everything, which was the more noticeable on account of her previously agreeable disposition she imagined every person wanted to poison her Her general lassitude increased, her gait became staggery, and she soon lost all ability to maintain the upright position, and when attempted, had a tendency to pitch forward , complained constantly of a cold spot on the top of her head She had a constantly sick stomach, with vomiting only toward the last , a constant desire to urinate, was very thirsty and drank a great deal , had some fever at times in the latter part of her illness , toward the last the pain in the head subsided , had great difficulty in deglutition, very great dyspnœa, some paralysis on the right side A week before she died became blind and deaf, with complete aphasia, and finally went into a comatose condition and died March 12th, 1884 The post mortem revealed two hydatids in the right and three in the left ventricle, with marked cerebral effusion and general softening of the entire brain substance

For the first, third and fourth cases I am indebted to my personal friend and fellow townsman, Dr J W Craig, although the writer was present at the necropsies of all excepting case No III, but had the pleasure and profit of examining the tumors removed in that case

In our opinion, the first and second cases were produced by the ecchinococcus, while the third and fourth were the result of the cysticercus cellulosa

By permission I quote from a private letter received from Prof Wm Pepper, of the University of Pennsylvania, in which he says "I have met with two cases, but unfortunately, the clinical records are so imperfect that I shall not publish them The autopsies were, however, carefully performed There was one hydatid in the retina in one case, with a cyst in the right anterior lobe of the brain In the other the cysts were found on the left side of the base They were both hospital cases, and no record could be obtained as to their previous history The one is undoubted as to its character, while in the other it is believed that the cysts were hydatid from their general gross appearance "

For a number of the following synopses of interesting cases of hydatids of the brain and spinal cord, I am not only indebted to my personal friend, Dr N Senn, of Milwaukee, for kind assistance in collecting them, but also for their translation, also to Dr Robert Herdegen, of Milwaukee, for his assistance in the same

Dr J Klob reports two cases of cysticercus cellulosæ in the brain, in the *Vienna Weekly*, Nos 8 and 9, 1867 The first case was that of a man aged 54, who two years previously suffered from rheumatic pains in the lower extremities For some time gradual loss of memory Pupils somewhat dilated, speech slow, but plain, difficulty in hearing, movements of the upper extremities slow and with effort, toward the last the patient was troubled with incontinence of urine, lower extremities paralyzed A post-mortem examination showed the dura mater to be tense, brain swollen, left hemisphere of the brain somewhat larger than the right On opening the left lateral ventricle, a large cyst with delicate walls escaped, which contained a clear, watery fluid The cyst was as large as a medium sized apple From the under surface a pedicle of gray color was given off, to which two smaller cysts were attached A peculiar pigment was observed, arranged symmetrically, in the centre of which were found the hooklets of the cysticercus

The second case was a woman 43 years of age, who after intense fright suffered from severe headache and a few days later was seized with convulsions These convulsions appeared at short intervals, and assumed an epileptiform character The convulsive movements affected mostly the left side of the body On the eleventh day of illness she died, death being preceded by collapse and stupor On post mortem examination the dura mater was found tense In the pia mater, over the right cerebrum, were found chalky nodules, which were identified as cysticerci which had undergone calcification On the lateral surface two recent cysticerci were found In the posterior portion of the right side of the brain a closed cavity the size of a walnut was found, which communicated with another cavity the size of a pea by a narrow channel At the point where both of these cavities joined was found a calcified cysticercus

Drs W and G Merkle report a case of cysticercus cellulosa in the cerebellum in the German Archives of Clinical Medicine, vol iii, p 297, in which the patient was a strong boy of 13, who was taken ill with severe pain and stiffness of extensor muscles of the neck, which abated slowly and imperfectly After a few months, severe attacks of headache were complained of, which were accompanied at times by vomiting These severe attacks were succeeded by sleep resembling stupor Death occurred suddenly The post mortem revealed in the left lobe of the cerebellum a tumor the size of a hazel nut, with a resistant yellow nucleus The entire white substance of the cerebellum was softened and gelatinous The they migrate into the system, and there develop into the cysticercus cellulosæ, which passes through a series of metamorphoses similar to that of the echinococcus.

The so-called "measly" pork owes its peculiarities to the presence of these cysticerci, which, when eaten by man or other animals, will develop into a tænia solium, or tape-worm. Although we have two distinct species of tænia which give rise to hydatid tumors, and furnish a wide field for study, yet we do not think a special study of either, except so far as they interest us clinically, is within the province of this paper, and would respectfully refer those who care to look up the subject in detail, to Kuchenmeister or Leuckart. From a clinical standpoint it matters but little which species is producing the intrusion on the economy, the results to the patients are the same.

It is true, as a rule, that the cysts or hydated tumors produced by the echinococcus are larger than those produced by the cysticerci, yet the latter make up for the deficiency in size by multiplicity in numbers. When hydatid tumors are opened and their contents examined with the microscope they may be found to contain complete scolices or just the scattered hooklets of broken and incomplete heads. When scolices cannot be found free in the liquid of the cyst, they may be found by examining the brood capsule, or lining membrane of the same, except in the case of acephalocysts when no scolices or isolated hooklets can be found. These hydatid tumors contain a pale straw colored fluid which usually contains no albumen, is freely charged with chloride of sodium, and contains a liberal quantity of succinic acid, which is not unfrequently found combined with lime or soda, also, traces of grape sugar, together with other chemicals, are generally found present.

Hydated cysts of one or the other of these tænia have been found in almost all parts of the human economy, but especially in the liver, the cellular tissue, the brain, the spinal cord, the eye, the spleen, the lungs, kidney, supra-renal capsules, heart, and even in the osseous system.

Kuchenmeister, who collected 88 cases of cysticercus of the brain, found the cysts 49 times in the membranes, six of which were on the dura mater, 11 on the arachnoid, 23 on the pia mater, and 9 on the choroid plexus. Fifty nine on the surface of the cerebrum, 41 in the cortical substance, 19 in the white substance, 18 in the ventricles and aqueduct, 17 in the corpora striata and anterior commissure, 15 in the optic thalami and gray commissure, 4 in the corpora quadrigemina and the pineal gland, twice each in the trigona olfactoria, corpus callosum and medulla oblongata, once in the olivary body, and 18 times in the cerebellum. In the above, 18 per cent were without any symptoms, in 6 they were only trifling, in 5 epilepsy alone was present, in 4 epilepsy with mental debility, in 15 epilepsy with paralytic symptoms, in 24 insanity without epilepsy, of which 7 were without motor or sensory disturbances, 17 had lameness, cramps, hemiplegia, paralysis and muscular twitchings, while out of all only 24 had epilepsy.

The size and growth of these hydatid tumors varies according to the space afforded them for development. It seems that their size depends more on the pliability of the tissues, rather than the quantity and quality of the nourishment furnished. The danger attending the presence of these hydatid tumors depends very much on their location and size. When they occur in the subcutaneous cellular tissue it is not attended with any great danger. I know of a young man who is under the care of my friend Dr. J. W. Craig, in whom they can be counted by the hundreds, notwithstanding the doctor has cut out several scores already, and yet the young man is apparently in good health. When they occur in the muscular tissue they become more and more injurious in proportion to their depth and the importance of the structures involved. Their occurrence in the anterior chamber of the eye may not occasion any grave symptoms, but when they occur in the posterior chamber, the vitreous, the retina, or under the retina, as observed by Sommering, Schott, von Graefe, Mackenzie, Baum, Esthlin Sickel, and others, they produce the most serious trouble. When they locate themselves in the brain or its membranes, they occasion a multitude of symptoms, which are modified by their location, as will be best observed in the cases I am about to report in this paper, and which, it will be readily observed, renders the diagnosis exceedingly difficult and obscure.

CASE I.—Dr. B., æt. 46, a large, strong hearty man, who was engaged as a traveling doctor, was taken ill in the summer of 1880, at first was easily fatigued, mentally and physically, but able to be up and around and practice his profession, which was soon followed with general malaise, which gradually grew worse until he had lost all inclination for business, this was followed by gradually increasing vertigo, could not sit upright long at a time, which became so bad as to almost disable him from walking across the room, or sitting up at all when he attempted to walk would pitch forward on the face. As the disease grew worse he was taken with vomiting, with or without food, which assumed a reflex character. From the first there was a constant tendency for the head to drop forwards, and toward the last, when not lying down, would sit with the head dropped forward, which tendency manifested itself even when lying down. He was extremely nervous, and toward the last his appetite, which had gradually failed him from the first, failed entirely, except that he had an incessant desire to drink milk, which was immediately vomited after entering the stomach. The bowels were regular and urine normal. There was a gradually increasing stupor, with some mental aberration toward the last, which continued, together with an increase of all the other symptoms, until the patient died from collapse March 3d, 1881. The post mortem revealed sclerosis of the gray portion of the brain, with softening in the right cerebellum and in both ventricles. In the right lateral ventricle was found a hydatid tumor the size of the first joint of a man's thumb, which was surrounded with some pus and considerable effusion.

CASE II.—J. W. K., æt. 28, a strong, hearty laborer, was taken sick in spring of 1879 with pain in the left side. No difficulty with the hearing, complained of trouble from coughing with pain in the chest, partial paralysis of right arm. In February, 1881 had a similar attack, also one in 1882, which was followed with another in December, 1883, when he commenced to have an offensive discharge from the left nostril. In May (23d), 1884, he was taken with a chill, followed with pain in the left side of the head. Had a troublesome cough of a nervous character, appetite good, which continued to the last, with no vomiting, bowels regular, no alteration of the temperature, but some nervous excitability of the pulse, which would often rise above or drop below the normal, and in a short time return to the normal again. Would often complain of a cold spot on the top or left side of his head. Was troubled at times with diplopia, and flashes of light in both eyes. Had been able to do manual labor, however, between each of the other attacks, and even up to the commencement of this last attack, at which time he had an exaggeration of all the former symptoms excepting the paralysis, but more especially the pulmonary symptoms, which gave rise to coughing and dyspnœa These symptoms increased until he died from general exhaustion June 1st, 1884 Assisted by Dr J Harvey Craig I made a post mortem five hours after death, and found a large hydatid tumor located in the left lateral ventricle, nearly as large as a hulled white walnut There was considerable effusion, with softening and destruction of the brain substance on the left side, and thickening of the membranes of the cerebellum and spinal cord, with here and there spots entirely destroyed by softening An examination of the rest of the body revealed nothing of an abnormal character

CASE III —O H B, æt 52, a strong, robust man, was accustomed to doing considerable mental and physical labor Commenced complaining in the spring of 1882, with general debility accompanied with some dyspnœa and difficulty in deglutition, but had no trouble digesting his food after getting it swallowed, bowels were normal, and urine natural at first, but contained some albumen toward the last Was advised to take a trip for his health, but returned feeling worse, both the asthmatic symptoms and the difficulty in swallowing were much worse His gait became unsteady and staggering, but no paralysis, and mind clear and no tendency to spasms These symptoms gradually became worse until the patient died of exhaustion December 30, 1883 The post mortem showed evidence of athoromatous degeneration of the cerebral arteries, more especially those in the circle of Willis, but little effusion Two hydatid tumors were found in the right lateral ventricle, and three in the left lateral ventricle, varying in size from a grape down to that of a pea

CASE IV —Mrs McS, æt 57, an ordinarily healthy female, had been married and raised a family, but was now a widow, had "changed life" at the age of 50 Had not been feeling well for some time, but commenced to grow worse in 1877, when she was very much debilitated, some mental aberration, among the first of which was that of imagining she smelt the fumes of a tobacco pipe She next became contrary in almost everything, which was the more noticeable on account of her previously agreeable disposition she imagined every person wanted to poison her Her general lassitude increased, her gait became staggery, and she soon lost all ability to maintain the upright position, and when attempted, had a tendency to pitch forward, complained constantly of a cold spot on the top of her head She had a constantly sick stomach, with vomiting only toward the last, a constant desire to urinate, was very thirsty and drank a great deal, had some fever at times in the latter part of her illness, toward the last the pain in the head subsided, had great difficulty in deglutition, very great dyspnœa, some paralysis on the right side A week before she died became blind and deaf, with complete aphasia, and finally went into a comatose condition and died March 12th, 1884 The post-mortem revealed two hydatids in the right and three in the left ventricle, with marked cerebral effusion and general softening of the entire brain substance

For the first, third and fourth cases I am indebted to my personal friend and fellow townsman, Dr J W Craig, although the writer was present at the necropsies of all excepting case No III, but had the pleasure and profit of examining the tumors removed in that case

In our opinion, the first and second cases were produced by the ecchinococcus, while the third and fourth were the result of the cysticercus cellulosa

By permission I quote from a private letter received from Prof Wm Pepper, of the University of Pennsylvania, in which he says "I have met with two cases, but unfortunately, the clinical records are so imperfect that I shall not publish them The autopsies were, however, carefully performed There was one hydatid in the retina in one case, with a cyst in the right anterior lobe of the brain In the other the cysts were found on the left side of the base They were both hospital cases, and no record could be obtained as to their previous history The one is undoubted as to its character, while in the other it is believed that the cysts were hydatid from their general gross appearance "

For a number of the following synopses of interesting cases of hydatids of the brain and spinal cord, I am not only indebted to my personal friend, Dr N Senn, of Milwaukee, for kind assistance in collecting them, but also for their translation, also to Dr Robert Herdegen, of Milwaukee, for his assistance in the same

Dr J Klob reports two cases of cysticercus cellulosa in the brain, in the *Vienna Weekly*, Nos 8 and 9, 1867 The first case was that of a man aged 54, who two years previously suffered from rheumatic pains in the lower extremities For some time gradual loss of memory Pupils somewhat dilated, speech slow, but plain, difficulty in hearing, movements of the upper extremities slow and with effort, toward the last the patient was troubled with incontinence of urine, lower extremities paralyzed A post-mortem examination showed the dura mater to be tense, brain swollen, left hemisphere of the brain somewhat larger than the right On opening the left lateral ventricle, a large cyst with delicate walls escaped, which contained a clear, watery fluid The cyst was as large as a medium sized apple From the under surface a pedicle of gray color was given off, to which two smaller cysts were attached A peculiar pigment was observed, arranged symmetrically, in the centre of which were found the hooklets of the cysticercus

The second case was a woman 43 years of age, who after intense fright suffered from severe headache, and a few days later was seized with convulsions These convulsions appeared at short intervals, and assumed an epileptiform character The convulsive movements affected mostly the left side of the body On the eleventh day of illness she died, death being preceded by collapse and stupor On post-mortem examination the dura mater was found tense In the pia mater, over the right cerebrum, were found chalky nodules, which were identified as cysticerci which had undergone calcification On the lateral surface two recent cysticerci were found In the posterior portion of the right side of the brain a closed cavity the size of a walnut was found, which communicated with another cavity the size of a pea by a narrow channel At the point where both of these cavities joined was found a calcified cysticercus

Drs W and G Morkle report a case of cysticercus cellulosa in the cerebellum in the German Archives of Clinical Medicine, vol iii, p 297, in which the patient was a strong boy of 13, who was taken ill with severe pain and stiffness of extensor muscles of the neck, which abated slowly and imperfectly After a few months, severe attacks of headache were complained of, which were accompanied at times by vomiting These severe attacks were succeeded by sleep resembling stupor Death occurred suddenly The post-mortem revealed in the left lobe of the cerebellum a tumor the size of a hazel-nut, with a resistant yellow nucleus The entire white substance of the cerebellum was softened and gelatinous The swelling was surrounded by a layer of pus 1 mm in thickness The tumor consisted of a cyst, which contained detritus, in the centre of which a well preserved cysticercus was found

A similar case is reported by G Markle, in the person of a boy 10½ years old, previously in robust health, who was taken ill with headache and vomiting In one of these attacks of headache he became restless and delirious, which was followed by unconsciousness, stupor and death At the necropsy, a cyst the size of a cherry was found in the infundibulum, which proved to be a cysticercus cellulosa The gyri of the brain were flattened, the consistency of the white substance was firm

Dr Marks, in writing of the echinococcus in the brain (Virchow in Hirsch's yearly report, 1873, vol I, p 640) reports a case of echinococcus in the brain which is of interest on account of its location in the left temporal lobe of the brain The patient, who was 40 years of age, had had an attack of dizziness during the month of December, 1871 In July, 1873, he was seized with another attack, which was followed with facial paralysis of the right side, complete paralysis of the left upper extremity, partial paralysis of the left lower extremity Sensation in both right arm and leg diminished His condition both mentally and physically gradually became worse, especially the aphasia He at last passed into a stupor, had incontinence of urine, followed by death The autopsy showed great tensity of the dura mater, the convolutions of the cerebrum were flattened, but more on the left than on the right side On the outer side of the left temporal lobe a green discolored spot the size of a dollar was found, below which, at the depth of 2 mm, an echinococcus cyst the size of a fist was found, which contained a clear fluid The cyst could be removed with ease from the substance of the brain The right half of the pons was flattened, while the remaining portions of the brain were not materially changed

Griesinger, who has collected over 70 cases of these parasitic affections of the brain, 54 of which he describes minutely, 21 of which were his own cases, found their occurrence in the spine very rare, of which Dr Otto Hebald reports two very interesting cases, which are recorded in vol XV, No 3, p 812, of the *Archiv fur Psychiatrie*, Berlin, 1884, for the translation of this, from which I only give a synopsis, I am indebted to Dr Henry Ruess, of Mansfield, Ohio

The first patient was an idiotic female, aged 63, of healthy parentage, but who had an idiotic half-sister Early in life she became hysterical Seven years ago was troubled with hallucinations, a year later was taken with epileptic convulsions, which occurred frequently, together with vomiting, two years later became blind, with partial paralysis, and perverted sensibility, difficult articulation, general depression, followed by death The autopsy revealed cysticerci under the pia mater of the spine and brain, also in the cortex of the latter One was found free in the lateral ventricle, also one in the muscle of the heart and under the pleura costalis

In the same article he reports another case which occurred in a female aged 65, who was of an irritable disposition, especially during the menstrual period, who was taken ill in 1876, showing signs of brain irritation, with hallucinations in hearing At times had attacks of religious exaltations, at others tore her hair, and at times was very destructive After being removed into the asylum her symptoms grew worse would inflict injuries upon herself and others, she was exceedingly filthy, would eat her own and others' fæces In 1877, symptoms of pressure on the brain with epileptic attacks, with unconsciousness, had vomiting of green matter, slight paralytic symptoms in the right upper extremity Her condition, with occasional short improvements, gradually grew worse which was attended with difficult articulation In 1879 partial and total blindness set in, from that time to 1881 and 1882 paralysis of lower extremities, toward the last, in 1883, had to be carried around Epileptic attacks preceded her death, which occurred in the summer of 1883 The autopsy revealed cysticercus the whole extent of the dura spinalis as high as the first dorsal vertebra, also over the right anterior and lateral division of the medulla Marked adhesions of the dura to the cranium Scattered under the membranes and over the brain in both lateral ventricles were cysts of the cysticerci from the size of a pea to that of a bean, which were filled with a clear yellowish liquid Also in the right posterior wall of the chest, under the pleura, were found four cysts about the size of a bean, also one under the left pleura costalis The writer observed that only those in the ventricles were well developed, the rest were imperfectly developed, and that those in the substance of the brain were smaller, and had a tougher capsule A few reached into the white substance of the brain, but not a single one was found there alone, the majority being in the cortical substance of the brain, in different parts of it After making a careful analysis, the author arrives at the conclusion that the case was primarily one of insanity, which led to the eating of fæces, by which she became infected with the cysticerci, which developed a new train of symptoms still later, which subsequently produced death

Ulrich, in abstract in Virchow, 1872, No 2, p 16, reports a case of cysticercus in the brain and spine both, in an insane person Regarding this case, he says the insanity was not caused by the cysticercus, but the cysticercus was the result of the extremely filthy habits of the person

Yates—abstract in Virchow, 1870, No 2, p 60, reports a case of a young man who died at the age of 21, who was under his care for two years previous to his death, and complained of headache, weakness of legs, hemiplegia, light delirium and stupor, followed by death Autopsy revealed a hydatid tumor the size of an ostrich egg in the left hemisphere of the cerebrum The patient died suddenly, but notwithstanding his stupidity, he was able to answer questions intelligently up to the time of his death

Sutherland—in Virchow, 1873, No 2, p 67, reports the occurrence of an echinococcus between the chiasm and pons, with compression of the two oculo motors, and destruction of the ventricles His symp toms were intense headache, frequent vomiting, tinnitus aurium, deafness, and impaired vision

Schlott—in Virchow, 1873, No 2, p 68, reports a case occurring in a former soldier, who took sick with frequent fits of giddiness, headache, nausea, and heaviness of his limbs tongue blue and swollen, oscillations before the eyes, diplopia, staggering gait His bodily and mental capabilities grew weaker first vomiting and regurgitation afterward would swallow with great avidity Spontaneous discharge of fæces and urine, his language became stammering, choreic movements, subsultus tendinum, and finally died with pulmonary œdema The autopsy revealed numberless cysticerci, from the size of a pin head to that of a pea, in the dura over the base of the brain, as well as in the dura of the cerebrum, in the substance of the cerebrum and cerebellum, and also on the surface of the same, and in the ventricles and in the great ganglions, besides, they were even found in the muscles throughout the body

Westphal—in Virchow, 1873, vol 2, p 68, reports an interesting case, with recovery, of echinococcus observed in the Charité, in Berlin, in a young man aged 17 The symptoms were headache, nausea, right exophthalmus, and protrusion of the right temporal bone, hemiplegia on the left side These symptoms came on step by step, with exacerbations and remissions The protrusion of the right parietal region became large, extending to the vertex In four weeks after he entered the hospital, by the finger one could feel a perforation of the bone about an inch above the outer angle of the right eye, four days later there was another perforation near the first one By and by, from these openings a fluctuating tumor appeared under the skin, and the tumor was diagnosticated echinococcus An exploratory puncture failed, and an incision was made, which soon discharged about ninety cysts Ten days later, by blowing his nose there came out of the left nostril a large and two smaller cysts When the patient left the hospital a few weeks later, he was free from headache and hemiplegia, but the circumference of the right side was three inches larger than the left, and the exophthalmus still continued, with blindness The openings in the bones still existed, the pulse varied from 90 to 150, with a normal temperature

Eichorst, vol II, page 708, says the echinococcus usually consists of but one cyst, seldom multiple, but in the case of Espinosa there were 52 cysts under the arachnoid membrane

The frequency of this disease depends on at least three factors 1, The prevalence of making dogs household pets, as in Iceland, where it is estimated by some writers that at least one-tenth of the population suffer from echinococci, which is undoubtedly due to this cause 2, The eating of half cooked "measly pork," which gives rise to numerous tapeworms, and they in turn to the cysticerci 3, The filthy habits of many, together with the increase of population, which necessitates the close commingling of all classes

Hydatid tumors are found to be more frequent in old persons than in young persons, although they may occur at any age, and are more apt to be found among the poorer members of the population than among those in affluent circumstances, but sex does not appear to make any difference as to their frequency The tape-worm and its embryo may exist in the same person at the same time, or a tape-worm and the echinococcus may exist in the same subject at the same time, but a tænia echinococcus and its embryo never has been known to exist in man at the same time The prognosis in this disease as a rule is unfavorable when it is intra cranial, only a few such cases of recovery are on record

The treatment of these cases is also very unsatisfactory so far as therapeutic remedies are concerned The salts of mercury and iodide of potassium have been, however, liberally used, with a view of destroying them by their antiparasitic effects, as well as for their alterative virtues Tr of kamala, in doses of from 30 to 40 drops three times a day, has been used freely with some reputation for good Electricity has filled its place in the catalogue of remedies used in this malady with a questionable reputation

When accessible the most positive benefits are derived from surgical interference, by which the cysts are emptied, by laying them open with the bistoury, and now that surgeons are beginning to deal with the brain as with other parts of the human economy, and more and more liberties are taken with it annually it is hoped that sufferers from this dreadful disease may find a source of relief ere long at the hands of the skillful surgeon

Although this disease, except in Iceland, is comparatively rare, and perhaps more so in America than in continental Europe, yet Dr Osler states, in regard to the echinococcus disease in America, that he has collected from various sources 61 cases (See transactions of Canada Med Association, 1882, p 354)

With the steady increase of our population, unless active preventive measures are inaugurated we must expect a corresponding increase in this disease, which will steal in on us as a thief in the night, and cause many a premature death, unless we remove the causes which favor its production and development, viz Dogs as household pets, the use of half-cooked unhealthy pork, together with all general unsanitary surroundings

April 20th, 1885

HOW SOON AFTER EXPOSURE TO SEPSIS MAY THE ACCOUCHEUR RESUME PRACTICE?[1]

BY GEO F FRENCH, A M , M D ,

OF MINNEAPOLIS MINN

The term puerperal fever embraces a group of essentially diverse affections, some of which are, unquestionably, non-contagious, the septicæmic variety of the disease is that which alone engages us in this discussion An estimate of its gravity may be deduced from the statement of Barker that since 1740 there have been more than two hundred epidemics of this disease This fact sufficiently emphasizes its prevalence, and the mortality attending many of these epidemics stamps the disease as a scourge scarcely less terrible than cholera or smallpox It is most humiliating, in view of the fact that puerperal fever is largely a preventable disease, caused too often by criminal negligence on the part of physician or nurse

---

[1] Read in the Section on Obstetrics and Gynecology at the thirty-sixth Annual Meeting of the American Medical Association

It is frequently urged that our science is not an exact one, but it seems to me the evidence that this fever may be caused by the contagia of erysipelas, scarlet fever and septic dirt, is as demonstrable as any proposition of Euclid It is now more than thirty years since Semmelweiss proclaimed to the profession that "one source of puerperal fever is decomposing organic matter" There is scarcely a hamlet in the land where instances of fatal puerperal infection have not been known, by the profession, to be traceable to avoidable sources, and there are few of us who have done service for a score of years, who have not been cognizant of such cases, which intelligent and conscientious vigilance might have prevented And yet I have heard of no one imitating the example of the conscientious Michalis, who expiated his offence with his life If death be the penalty of homicidal ignorance, what shall it be for criminal carelessness? In the whirl of crowded professional work, some plead lack of opportunity to carry out the tedious and painstaking details of the disinfecting process, but how valid would such excuse appear in the case of wife or sister, or in the eye of the law? The great Simon sententiously remarks "Contagia are perhaps the most important of all the incidental physical influences which concern mankind," and Hebra says the discovery of Semmelweiss as to the chief source of puerperal fever, ranks in importance with that of Jenner

In order to obtain all possible light on the duty of the practitioner to the obstetric patient, I addressed in October last letters of inquiry to some of the most distinguished medical men in this country and in Europe, of which the following is the substance "How soon after exposure to sepsis may the accoucheur resume practice? My purpose is to controvert the opinion which obtains in the profession, that *time* is an essential element in the cleansing process I have had an experience which emboldens me to make abdominal section on the day following exposure I greatly desire to know whether your experience warrants me in pursuing and advocating such a course"

In reply the following communications were received I omit all portions purely personal

In my opinion, the element of time *is* essential

HENRY SAVAGE

Samaritan Free Hospital for Women and Children, London, November 3 1884

In reply to yours of October 16, I beg to inform you that I consider time an all essential element in the cleansing process

The fixing of any definite limit is a difficult one, both for abdominal surgery and midwifery Our Samaritan Hospital rule is a week, and certainly I think that this is short enough "An experience" is of course valueless The general experience is the only guide I do not think the profession generally sufficiently careful on this point, or sufficiently alive to the extreme danger of neglect J KNOWSLEY THORNTON

London November 28, 1884

From Freiberg, November 6, 1884, HEGAR writes

The question laid before me is difficult to answer Proof is not exact as to how the septic germ behaves with reference to heat, light and disinfection From a purely theoretical standpoint, the question cannot be answered so far as concerns experience, opinions differ The one observes we should avoid for some time operations where infection is easily communicated, the other thinks we can perfectly cleanse ourselves Moreover, the last give tedious directions as to the disinfecting

I dare not decide between them, whether a perfect cleansing is possible or not In my experience, it is difficult, one must be extremely careful I think that in general we shall do well to avoid for two or three days operations in which the danger of infection is very great, as in laparotomies That with the avoidance careful cleansing is not unnecessary, is understood Were I or a relative to undergo an operation, I should, *ceteris paribus*, choose the surgeon who, for several days, had had nothing to do with septic material

The foregoing opinions, differing widely from my own, certainly carry with them the weight of high authority

Let us consider some of the notions regarding contagion which once prevailed, and compare them with opinions now held A century ago, a belief obtained even among the *savants* of the profession, in what was called a lousy distemper, supposed to be spontaneously generated in the body by cachexia or bad humors (Fuchs) Devergie held that innutrition led to the development of lice According to Husemann, the emperor Arnulf's death, and that of one of the Danish kings, was ascribed to the lousy distemper Colonies of such vermin, in macroscopic legions, were believed to be entrenched under the skin so that it was impossible to dislodge or exterminate them It was manifestly ineffective to destroy by disinfectants those on the surface, because in a few hours their place was supplied by fresh eruptions from within These ideas have been succeeded in the profession by vague fancies that are the legitimate offspring of these superstitions There is a dread of some supernatural presence, alike invisible and invincible

When for years puerperal fever hovered like a spectre over the practice of Dr Rutter, and neither art could cleanse him nor science explain the nature of his leprous influence, Dr Meigs reverently observed that he was "merely unhappy in meeting with such accidents through God's providence" So long as a disease is controlled by an unknown power, it is formidable, as soon as it is traceable to natural causes, it is shorn of its terrors Dr Rutter, as an object of superstitious fear, was a plague-stricken spot in the profession, but as a simple case of ozœna, he was no longer an object of consternation

The present weight of evidence goes to show that the *materies morbi* of contagion, whether living or dead, is a non gaseous particle, capable of being acted upon and demonstrably susceptible of destruction Its material nature makes it amenable to material and human influences Several kinds of contagia have been isolated, and their property of self multiplication demonstrated It has been exactly determined how such contagia are affected by chemical and various other agents The longevity of the bacillus is not to be determined by the duration of its individual life, but by the fact of its infinite multiplication and the unending existence of the organism through its spores I am told that Pasteur has spores which have been preserved twenty years Clinically this has been too frequently illustrated by repeated outbreaks in non disinfected houses of diseases like diphtheria and scarlet fever, after long intervals Murchison and Richardson report cases where disease had become so fixed in certain houses, that succeeding families and tenants were attacked, though many months intervened between the various occupancies Hildenbrand's coat, according to Professor Louis Thomas, "retained its contagion for a year and six months" The tenacity of life of certain forms of contagia is expressed and emphasized by the opinions of those who believe that they cannot be immediately destroyed by any known means Experiments by Arloing, Thomas, Koch and Sternberg, show that the resting spores of the bacilli are the most difficult of all forms of life to destroy requiring a solution of corrosive sublimate 1–5000, while ordinary spores are killed by a solution of 1–20000 Steam or boiling water kills all bacteria and spores in ten or fifteen minutes Filth, undergoing putrefactive or fermentative change, is most conducive to the spread of infectious diseases

Particles of contagion most often find lodgement on our hands, and particularly under the finger nails It is always possible after the ordinary use of the nail brush or knife, to remove particles of dirt, in which the microscope reveals living germs of possible infection On this account, I cut the nails short, and swab under them with a blunt instrument covered with cloth, and wet with some disinfecting liquid I formerly used for this purpose, a 5 per cent solution of carbolic acid, but this made the sensitive flesh crack and pull away from the nails, I now use instead, corrosive sublimate solution 1 2000—The 5 per cent solution of carbolic acid, even in washing the hands, causes them to crack and chap so as to be an open source of infection to the operator Before I adopted the swabbing under the nails, I covered the interspace with collodion, the use of which I now reserve for hang-nails, cracks and abrasions All instruments are kept scrupulously clean as well as disinfected, and the nurse is regarded as one of the instruments

Time is essential so far as it is requisite to make the cleansing process thorough and complete, but time alone is important to effect anything To me, the most impressive contribution to the study of this subject, the most practical in method and most telling in results, was a paper in a June, 1880, number of the *Centralblatt für Chirurgie*, by Volkmann — "May a surgeon or obstetrician undertake post mortem examinations?" Beside the usual method of cleansing the hands, he guards against infectious emanations from the clothing, by wearing a fresh linen coat Spectators at laparotomies are furnished with similar coats, and instead of being asked whether they have been attending erysipelas, etc , and thrown on their honor, they are disinfected in an adjoining room, under the supervision of an assistant Cleanliness is a trait of personal character, and it is as impossible for some men to be absolutely clean, as it is for them to be orderly or systematic Such physicians are disqualified for ovariotomy, or even obstetric work

To show my confidence in the possibility of immediate absolute disinfection, I made the following experiments

June 21, 1884, after laying open a dissecting abscess of the thigh in a pyæmic patient, and stripping the limbs with both hands, till they were offensively drenched with pus, I scrupulously disinfected myself, and three hours later, attended Mrs M in confinement

July 22, 1884—In dealing with a case of pyonephrosis, before penetrating the kidney, I came upon a foul perinephritic abscess, passing through this, the kidney was sought, incised, explored and its grumous contents scooped out with the finger The hand was so long engaged in this work, that a more complete purulent saturation could hardly be conceived In the afternoon of the same day I confined the wife of a physician, after stating to him the full extent of my morning exposure In both of these cases, the convalescence was perfectly normal

February 11—I purposely infected my index finger with the ichor of erysipelas, and after a corrosive sublimate wash, inserted it into a fresh wound, from which I had just excised a tumor I might indefinitely multiply instances of this kind But I will present opinions which to my mind are *ex cathedrâ*

> I have done what you have done, without bad consequences, and I fully agree with you in your conclusions
>
> Wm Goodell
>
> Philadelphia, October 25, 1884

> In our pure atmosphere, I have never declined obstetric work on account of septic exposure, and have never had an accident
>
> Robert Battey
>
> Rome Ga , October 3, 1885

> I have done no obstetric practice in twenty years, but judging from a surgical stand point, I would say that the interval might be a short one, after the free use of soap and water, the nail brush and a change of clothing T A Emmet
>
> 89 Madison avenue, New York, February 25, 1885

> I quite agree with your premises Time, is an uncertain, and may be, a dangerous factor to place trust in I do not question the wisdom of general rules of Hospital practice, and until we know something of the real sources of danger, it was wise to make time a consideration I think now our general knowledge of the particular *materies morbi*, quite sufficient to allow the intelligent *believer* to so care for himself, that he may safely be able to operate as you have done I am not aware that I have infected an individual since I made a careful study of the subject
>
> Henry O Marcy
>
> Boston, December 6, 1884

Most of us recall the memorable paper of Prof Thomas, read in December, 1883, before the New York Academy of Medicine, in which he describes his method of disinfecting himself, in the the short interval, between a case of puerperal septicæmia and a Tait's operation Physicians from Main to California were interested in that particular operation Dr Thomas subsequently informed me, that the patient recovered without a bad symptom

The following letter is from Prof Martin, of Berlin, dated December 7, 1884

> According to my experience, we are able to disinfect ourselves sufficiently, so that we can resume practice very soon after an exposure to sepsis The chief question is, What are the best means of disinfection? For the entire body, a lotion of corro

sive sublimate 1–10000, for the hands, 1–1000 This has been my custom when I have been obliged to make an abdominal section the day following exposure to septic infection I believe that a night's rest in bed, is an important adjuvant My friend, Dr Carl Ruge, on two occasions, was summoned from an autopsy to the bedside of a parturiant, and under protest, introduced his hand into the uterus He had cleansed his hands with corrosive sublimate, and no evil results followed The untorn uterus, even when puerperal, is not so susceptible to septic infection as the peritoneum, which should not be touched until there has been a general ablution both with soap and corrosive sublimate The great question is, Who is able to disinfect properly? And the answer to this question is quite an individual matter

Dr Carl Schroder writes, under date of December 4, 1884

In my opinion, withdrawal from practice is not necessary, but can be resumed after a thorough cleansing

Prof Nussbaum writes from Munich, November 8, 1884

I have very often made ovariotomies with the best results, the day after a post mortem, but I have always made a thorough disinfection of my hands, and changed my clothes
GEHEIMRATH VON NUSSBAUM

At the beginning of this paper, I referred to the noteworthy publication of Prof Volkmann in the *Centralblatt fur Chirurgie* of 1880 In his letter to me, dated Halle, December 5, 1884, he says

I hold the same views to day as at that time A surgeon who *disinfects* himself *well*, can immediately after making a post mortem examination, or dressing a septic wound, undertake a laparotomy, do a trepanning, examine a patient with a fresh complicating fever, or dress a penetrating wound of the joint Every morning from six to eight, during the summer, I am obliged to give the students operations on the cadaver, and from ten to three, I am busy in the Hospital operating and dressing wounds, and I have never yet infected a patient In the winter, I have no operations on the cadaver to make Comparing my results in the clinic, I can assure you, that the mortality in summer is not greater than in winter
RICHARD VOLKMANN

In conclusion, I present the following characteristic reply, which epitomizes the subject under discussion

If you have *thoroughly* disinfected yourself, you can immediately enter upon obstetric practice *Time* does not destroy septic dirt
ESMARCH
Kiel, December 5, 1884

GEOGRAPHICAL PATHOLOGY OF CONSUMPTION[1]

BY G W McCASKEY, A M, M D,

PROFESSOR OF DISEASES OF THE THROAT AND CHEST FT WAYNE COLLEGE OF MEDICINE FT WAYNE IND

I

The deaths from consumption in the United States, in the year 1880, numbered 91,551, almost one-eighth the entire mortality from all causes This pregnant fact seems to furnish at once an incentive and excuse for the following endeavor to ascertain what definite relation there is, if any such exists, between this disease and certain climatic conditions in the United States

An obstacle is encountered at the very threshold of the inquiry in our defective system of registration It must be admitted, in the first place, that many cases reported as consumption have no relation to that disease It is also well known that many cases are not reported at all The migratory character of a considerable body of the population—especially its westward flow—is also a disturbing element in a statistical study And, finally, those regions, the climates of which have secured the reputation of being curative of consumption, have their death rate from this disease greatly increased by the immigration of a large number of the rapidly fatal type of cases The last-named source of error can not be removed, as there are no available records of its extent It is only found, however, in a small number of localities, and if it could be entirely removed the only effect, so far as the present study is concerned, would be to increase the force of the conclusions drawn After recognizing its existence, therefore, it may safely be dismissed

So far as the other sources of error are concerned, while their existence is to be deplored, they will not impair deductions made from data which need only be comparatively correct Indeed, for purposes of comparison the absolute death rate is quite unnecessary The death-rates of different localities might just as well be expressed in units, taking as an arbitrary standard either the highest or lowest death-rate found in any given locality, the mean death-rate between these two extremes, or the average of all. There is little doubt that the census report gives data which are at least relatively correct, and which can therefore be relied upon for the purposes of a comparative study The area of the United States is too vast and complicated for detailed analysis within the intended scope of this paper By a general survey, however, certain broad facts may be collated, and certain inferences drawn, which may not be without value

A basis for comparison, at once practical and scientific, is readily formed by placing side by side (1), the mortality from consumption, (2), the mortality from all causes, and (3), the percentage of the former to the latter These data will be ascertained for the United States, for groups of States, for individual States, and, in some instances, for parts of States. Notwithstanding the wide variations found in different parts of these extensive regions, each has its average of annual rain fall, of elevation, of mean annual temperature, and the like, which, taken together, or perhaps singly, are entirely characteristic of itself These distinctions are broad enough to completely overshadow local anomalies, even if these did not, in accordance with a well recognized law, correct one another by mutual antagonisms

With the exception of four states (California, Florida, Louisiana and Pennsylvania) and three territories (Arizona, Nevada and Montana), the death-rate from all causes was larger in 1880 than in 1870 The result of this increase upon the part of the individual states is to raise the death rate of the United States from 13 3 per 1,000 in 1870 to 15 1 in 1880, an increase of 13½ per cent Curiously contrasting with this fact, the death-rate from consumption either shows no change or a slight increase in all except fifteen of the states and territories. The average for the United States, which shows no change whatever, remaining 1.8 per 1,000 for each year, only illustrates and confirms the remark that the local variations neutralize one another, thus making no change in the general result.

---

[1] Read before the Indiana State Medical Association

The following table has been compiled from the census reports for 1870 and 1880.

TABLE I.

Showing death-rate (1) from all causes, (2) from consumption, and (3) percentage of latter to former.

	Deaths per 1000 of Population		Deaths from Consumption per 1000 of Population		Percentage of Deaths from Consumption to all Deaths	
	1870	1880	1870	1880	1870	1880
UNITED STATES	13.3	15.1	1.8	1.8	14.1	12.1
Alabama	10.8	14.2	.76	1.4	7.0	9.0
Arizona	26.1	7.2	0.1	.4	.4	6.9
Arkansas	12.6	18.1	.9	1.2	7.0	6.4
California	16.1	13.4	2.2	2.2	13.8	15.6
Colorado	9.4	13.1	0.8	1.1	8.5	8.2
Connecticut	12.6	14.7	2.3	2.2	17.9	15.2
Dakota	7.1	0.6	.9	.8	12.8	8.0
Delaware	12.5	15.1	2.4	2.4	18.9	11.1
District of Columbia	15.3	24.5	3.4	4.4	21.9	19.0
Florida	12.1	11.7	0.7	1.0	5.7	8.0
Georgia	11.5	13.9	0.7	1.1	6.4	8.0
Idaho	3.3	9.1	0.3	0.7	10.0	6.1
Illinois	13.3	14.5	1.4	1.5	10.8	13.3
Indiana	10.5	15.7	1.7	2.0	15.5	12.7
Iowa	8.1	11.9	1.1	1.2	13.7	9.9
Kansas	12.5	15.2	1.1	1.1	9.0	7.3
Kentucky	10.9	14.4	1.9	2.3	17.4	15.7
Louisiana	20.0	15.4	1.9	1.6	9.7	10.7
Maine	13.3	14.8	3.2	2.8	25.6	19.2
Maryland	12.4	18.1	2.1	2.5	17.2	14.1
Massachusetts	17.7	18.5	3.5	2.9	19.9	15.7
Michigan	9.4	12.0	1.6	1.6	16.4	13.2
Minnesota	8.0	11.6	1.0	1.1	13.0	9.4
Mississippi	11.1	12.9	.8	1.1	7.6	8.2
Missouri	16.3	16.9	1.6	1.7	9.7	9.1
Montana	9.0	8.0	.8	.5	9.2	5.4
Nebraska	8.1	13.1	.7	.9	8.7	7.0
Nevada	14.5	11.7	.7	1.0	4.8	8.4
New Hampshire	13.5	16.1	3.0	2.5	22.2	15.7
New Jersey	11.7	16.3	2.0	2.3	17.2	14.2
New Mexico	12.8	20.3	.5	.4	3.8	2.5
New York	15.8	17.4	2.6	2.5	16.7	14.6
North Carolina	9.8	15.4	1.1	1.5	11.7	9.1
Ohio	11.1	13.3	2.0	1.9	17.7	13.9
Oregon	6.9	10.7	1.2	1.3	18.0	12.1
Pennsylvania	14.9	10.2	2.1	1.0	14.2	12.6
Rhode Island	12.6	17.0	2.5	2.4	20.1	14.7
South Carolina	10.5	15.8	.9	1.6	8.9	9.1
Tennessee	11.3	16.8	1.9	2.4	16.7	14.5
Texas	13.7	15.5	.8	1.0	5.9	6.6
Utah	10.3	16.7	.7	.5	7.1	2.9
Vermont	10.7	15.1	2.2	2.4	20.2	16.0
Virginia	12.4	16.3	1.7	2.0	13.8	12.1
Washington	9.3	10.5	1.5	1.3	15.7	12.2
West Virginia	9.1	11.9	1.6	1.6	17.6	13.1
Wisconsin	9.4	12.1	1.2	1.3	13.2	10.5
Wyoming	8.1	9.1	.4	.3	5.4	2.6

The well known prevalence of the disease in New England, and its rarity in the south Atlantic and Gulf coast states, becomes at once apparent. It is also observed that, with numerous undulations, it is somewhat evenly distributed over the remaining states east of the 95th meridian. In the vast region west of this meridian, comprising more than one-half the territory of the United States, and about one-fifteenth of its population, it is, with the exception of a portion of California (Texas is included in another division), even less prevalent than in the south Atlantic and Gulf coast states.

The division into groups indicated by the following table is intended to throw together adjacent states which have something in common regarding their consumption death-rate, with the view of studying some of their more important climatic conditions for the purpose above mentioned. The boundary line between these different regions, to be absolutely correct, would often, or perhaps generally, intersect the different border states. The difficulties in the way of securing statistical data for parts of states were so great, however, as to render such a division impracticable. The number of these groups, furthermore, could have been indefinitely increased, often comprising a few counties instead of several states. This could only have led to confusion, and been utterly barren of results.

TABLE II.

Showing death rate (1) from all causes, (2) from consumption, and (3) percentage of latter to former in groups of States.[1]

	Deaths per 1000 of Population from all cause		Deaths per 1000 of Population from Consumption		Percentage of Deaths from Cons'n to Deaths fr. all causes	
	1870	1880	1870	1880	1870	1880
New England States	14.6	16.7	3.0	2.6	20.8	16.1
Middle States	14.9	16.2	2.4	2.2	15.8	13.8
S. Atlantic and Gulf States	12.2	14.6	1.0	1.3	8.1	8.8
Interior and Lake States	11.5	14.6	1.6	1.8	14.2	12.0
States and Territories W. of 95th Meridian except Texas and California	10.8	13.8	0.9	1.0	8.5	7.1
California	16.1	13.4	2.2	2.2	13.8	15.6

Having marked out the different regions for individual study and noted the high mortality from consumption in the New England and Middle states, and the low mortality in the south Atlantic and Gulf states, and the western half of the continent, it now remains to study the climatic conditions of each group in their bearings upon this disease.

Temperature.—Temperature may first be considered, as one of the most prominent factors in that combination of conditions called "climate." The mean annual temperature will be taken as the standard of comparison. In making estimates of the mean annual temperature of a group of states, it should be constantly born in mind, that they are only the averages of more or less widely diverging extremes. The same caution is necessary in considering the like estimates of annual rain-fall, and altitude which are to follow. As absolute measurements, they are not reliable; as comparative statements—and it is for purposes of comparison only that they are introduced—they are believed to be approximately correct. A glance at the isothermal, isohyetal, and hypsometric charts, especially the first two, will illustrate in a very forcible manner, the difficulties encountered. Taking the entire Atlantic and Gulf Coast line, we find a very marked decrease in its consumption death rate as the mean annual temper-sive sublimate 1–10000, for the hands, 1–1000 This has been my custom when I have been obliged to make an abdominal section the day following exposure to septic infection I believe that a night's rest in bed, is an important adjuvant My friend, Dr Carl Ruge, on two occasions, was summoned from an autopsy to the bedside of a parturiant, and under protest, introduced his hand into the uterus He had cleansed his hands with corrosive sublimate, and no evil results followed The untorn uterus, even when puerperal, is not so susceptible to septic infection as the peritoneum, which should not be touched until there has been a general ablution both with soap and corrosive sublimate The great question is, Who is able to disinfect properly? And the answer to this question is quite an individual matter

---

[1] The New England and Middle states were assigned positions as separate groups, partly because of their long recognized geographical unity, and partly because there were no apparent reasons for uniting the two groups or subdividing either. The third group includes the remaining states of the Atlantic and Gulf coast. The group of states lying wholly or principally east of the 95th meridian *and not included in the first three groups* have been designated the Interior and Lake states. A fifth group comprises the remaining states and territories with the exception of California, which, on account of the very high death rate of a portion of the state, is assigned a position as a distinct region by itself.

Dr Carl Schroder writes, under date of December 4, 1884

> In my opinion, withdrawal from practice is not necessary, but can be resumed after a thorough cleansing

Prof Nussbaum writes from Munich, November 8, 1884

> I have very often made ovariotomies with the best results, the day after a post mortem, but I have always made a thorough disinfection of my hands, and changed my clothes
>
> GEHEIMRATH VON NUSSBAUM

At the beginning of this paper, I referred to the noteworthy publication of Prof Volkmann in the *Centralblatt fur Chirurgie* of 1880 In his letter to me, dated Halle, December 5, 1884, he says

> I hold the same views to day as at that time A surgeon who *disinfects* himself *well*, can immediately after making a post mortem examination, or dressing a septic wound, undertake a laparotomy, do a trepanning, examine a patient with a fresh complicating fever, or dress a penetrating wound of the joint Every morning from six to eight, during the summer, I am obliged to give the students operations on the cadaver, and from ten to three, I am busy in the Hospital operating and dressing wounds, and I have never yet infected a patient In the winter, I have no operations on the cadaver to make Comparing my results in the clinic, I can assure you, that the mortality in summer is not greater than in winter
>
> RICHARD VOLKMANN

In conclusion I present the following characteristic reply, which epitomizes the subject under discussion

> If you have *thoroughly* disinfected yourself, you can immediately enter upon obstetric practice *Time* does not destroy septic dirt
>
> ESMARCH
>
> Kiel, December 5 1884

GEOGRAPHICAL PATHOLOGY OF CONSUMPTION[1]

BY G W McCASKEY, A M, M D,

PROFESSOR OF DISEASES OF THE THROAT AND CHEST FT WAYNE COLLEGE OF MEDICINE FT WAYNE IND

I

The deaths from consumption in the United States, in the year 1880, numbered 91,551, almost one-eighth the entire mortality from all causes This pregnant fact seems to furnish at once an incentive and excuse for the following endeavor to ascertain what definite relation there is, if any such exists, between this disease and certain climatic conditions in the United States

An obstacle is encountered at the very threshold of the inquiry in our defective system of registration It must be admitted, in the first place, that many cases reported as consumption have no relation to that disease It is also well known that many cases are not reported at all The migratory character of a considerable body of the population—especially its westward flow—is also a disturbing element in a statistical study And, finally, those regions, the climates of which have secured the reputation of being curative of consumption, have their death-rate from this disease greatly increased by the immigration of a large number of the rapidly fatal type of cases The last-named source of error can not be removed, as there are no available records of its extent It is only found, however, in a small number of localities, and if it could be entirely removed the only effect, so far as the present study is concerned, would be to increase the force of the conclusions drawn After recognizing its existence, therefore, it may safely be dismissed

So far as the other sources of error are concerned, while their existence is to be deplored, they will not impair deductions made from data which need only be comparatively correct Indeed, for purposes of comparison the absolute death-rate is quite unnecessary The death rates of different localities might just as well be expressed in units, taking as an arbitrary standard either the highest or lowest death-rate found in any given locality, the mean death rate between these two extremes, or the average of all There is little doubt that the census report gives data which are at least relatively correct, and which can therefore be relied upon for the purposes of a comparative study The area of the United States is too vast and complicated for detailed analysis within the intended scope of this paper By a general survey, however, certain broad facts may be collated, and certain inferences drawn, which may not be without value

A basis for comparison, at once practical and scientific, is readily formed by placing side by side (1), the mortality from consumption, (2), the mortality from all causes, and (3), the percentage of the former to the latter These data will be ascertained for the United States, for groups of States, for individual States, and, in some instances, for parts of States. Notwithstanding the wide variations found in different parts of these extensive regions, each has its average of annual rain fall, of elevation, of mean annual temperature, and the like, which, taken together, or perhaps singly, are entirely characteristic of itself These distinctions are broad enough to completely overshadow local anomalies, even if these did not, in accordance with a well recognized law correct one another by mutual antagonisms

With the exception of four states (California, Florida, Louisiana and Pennsylvania) and three territories (Arizona Nevada and Montana), the death-rate from all causes was larger in 1880 than in 1870 The result of this increase upon the part of the individual states is to raise the death-rate of the United States from 13 3 per 1,000 in 1870 to 15 1 in 1880, an increase of 13½ per cent Curiously contrasting with this fact, the death rate from consumption either shows no change or a slight increase in all except fifteen of the states and territories The average for the United States, which shows no change whatever, remaining 1.8 per 1,000 for each year, only illustrates and confirms the remark that the local variations neutralize one another, thus making no change in the general result

---

[1] Read before the Indiana State Medical Association

The following table has been compiled from the census reports for 1870 and 1880

TABLE I

Showing death rate (1) from all causes, (2) from consumption and (3) percentage of latter to former

	Deaths per 1000 of Populat'n		Deaths from Consumption per 1000 of Populat'n		Percentage of Deaths from Consumption to all Deaths	
	1870	1880	1870	1880	1870	1880
UNITED STATES	13.3	15.1	1.8	1.8	14.1	12.1
Alabama	10.8	14.2	.76	1.4	7.0	9.0
Arizona	26.1	7.2	0.1	.4	.4	6.9
Arkansas	12.6	18.1	.9	1.[illegible]	7.0	6.4
California	16.1	13.4	2.2	2	13.8	15.6
Colorado	9.4	13.1	0.8	1.1	8.5	8.2
Connecticut	12.6	14.7	2.3	2.2	17.9	15.2
Dakota	7.1	9.6	.9	.8	12.8	8.9
Delaware	12.5	15.1	2.4	2.4	18.9	11.1
District of Columbia	15.3	24.5	3.4	4.4	1.0	19.0
Florida	12.1	11.7	0.7	1.0	5.7	8.0
Georgia	11.5	13.0	0.7	1.1	6.4	8.0
Idaho	3.3	9.1	0.3	0.7	10.0	6.1
Illinois	15.3	14.5	1.4	1.5	10.8	13.3
Indiana	10.5	15.7	1.7	2.0	15.5	12.7
Iowa	8.1	11.9	1.1	1.2	13.7	9.9
Kansas	12.5	15.2	1.1	1.1	9.0	7.3
Kentucky	10.9	14.4	1.9	2.3	17.4	15.7
Louisiana	20.0	15.4	1.9	1.6	9.7	10.7
Maine	13.3	14.8	3.2	2.8	25.6	19.2
Maryland	12.4	18.1	2.1	2.5	17.2	14.1
Massachusetts	17.7	18.5	3.5	2.9	19.9	15.7
Michigan	9.4	12.0	1.6	1.6	16.4	13.2
Minnesota	8.0	11.6	1.0	1.1	13.0	9.4
Mississippi	11.1	12.9	.8	1.1	7.6	8.2
Missouri	16.3	16.9	1.6	1.7	9.7	9.1
Montana	9.0	8.0	.8	.5	9.2	5.4
Nebraska	8.1	13.1	.7	.9	8.7	7.0
Nevada	14.5	11.7	.7	1.0	4.8	8.1
New Hampshire	13.5	16.1	3.0	2.5	22.2	15.7
New Jersey	11.7	16.3	2.0	2.3	17.2	14.2
New Mexico	12.8	20.3	.5	.4	3.8	2.5
New York	15.8	17.4	2.6	2.5	16.7	14.6
North Carolina	9.8	15.4	1.1	1.5	11.7	9.1
Ohio	11.1	13.3	2.0	1.9	17.7	13.9
Oregon	6.9	10.7	1.2	1.3	18.0	12.1
Pennsylvania	14.9	10.2	2.1	1.0	14.2	12.6
Rhode Island	12.0	17.0	2.5	2.4	20.1	14.7
South Carolina	10.5	15.8	.9	1.6	8.9	9.1
Tennessee	11.3	16.8	1.9	2.4	16.7	14.5
Texas	13.7	15.5	.8	1.0	5.9	6.6
Utah	10.3	16.7	.7	.5	7.1	2.9
Vermont	10.7	15.1	2.2	2.4	20.2	16.0
Virginia	12.4	16.3	1.7	2.0	13.8	12.1
Washington	9.3	10.5	1.5	1.3	15.7	13.2
West Virginia	9.1	11.9	1.6	1.6	17.6	13.1
Wisconsin	9.4	12.1	1.2	1.3	13.2	10.5
Wyoming	8.1	9.1	.4	.3	5.4	2.6

The well known prevalence of the disease in New England, and its rarity in the south Atlantic and Gulf coast states, becomes at once apparent It is also observed that, with numerous undulations, it is somewhat evenly distributed over the remaining states east of the 95th meridian In the vast region west of this meridian, comprising more than one half the territory of the United States, and about one-fifteenth of its population, it is, with the exception of a portion of California (Texas is included in another division), even less prevalent than in the south Atlantic and Gulf coast states

The division into groups indicated by the following table is intended to throw together adjacent states which have something in common regarding their consumption death-rate, with the view of studying some of their more important climatic conditions for the purpose above mentioned The boundary line between these different regions, to be absolutely correct, would often, or perhaps generally, intersect the different border states The difficulties in the way of securing statistical data for parts of states were so great, however, as to render such a division impracticable The number of these groups, furthermore, could have been indefinitely increased, often comprising a few counties instead of several states This could only have led to confusion, and been utterly barren of results

TABLE II

Showing death rate (1) from all causes, (2) from consumption, and (3) percentage of latter to former in groups of States [1]

	Deaths per 1000 of Population from all cause		Deaths per 1000 of Population from Consumption		Percentage of Deaths from Consum to Deaths fr all causes	
	1870	1880	1870	1880	1870	1880
New England States	14.6	16.7	3.0	2.6	20.8	16.1
Middle States	14.9	16.2	2.4	2.2	15.8	13.8
S Atlantic and Gulf States	12.2	14.6	1.0	1.3	8.1	8.8
Interior and Lake States	11.5	14.6	1.6	1.8	14.2	12.0
States and Territories W of 95th Meridian except Texas and California	10.8	13.8	0.9	1.0	8.5	7.1
California	16.1	13.4	2.2	2.2	13.8	15.6

Having marked out the different regions for individual study, and noted the high mortality from consumption in the New England and Middle states, and the low mortality in the south Atlantic and Gulf states, and the western half of the continent, it now remains to study the climatic conditions of each group in their bearings upon this disease

Temperature.—Temperature may first be considered, as one of the most prominent factors in that combination of conditions called "climate" The mean annual temperature will be taken as the standard of comparison In making estimates of the mean annual temperature of a group of states, it should be constantly born in mind, that they are only the averages of more or less widely diverging extremes The same caution is necessary in considering the like estimates of annual rain fall, and altitude which are to follow As absolute measurements, they are not reliable, as comparative statements—and it is for purposes of comparison only that they are introduced—they are believed to be approximately correct A glance at the isothermal, isohyetal, and hypsometric charts, especially the first two, will illustrate in a very forcible manner, the difficulties encountered Taking the entire Atlantic and Gulf Coast line, we find a very marked decrease in its consumption death rate as the mean annual temper-sive sublimate 1-10000, for the hands, 1-1000 This has been my custom when I have been obliged to make an abdominal section the day following exposure to septic infection I believe that a night's rest in bed, is an important adjuvant My friend, Dr Carl Ruge, on two occasions, was summoned from an autopsy to the bedside of a parturiant, and under protest, introduced his hand into the uterus He had cleansed his hands with corrosive sublimate, and no evil results followed The untorn uterus, even when puerperal, is not so susceptible to septic infection as the peritoneum, which should not be touched until there has been a general ablution both with soap and corrosive sublimate The great question is, Who is able to disinfect properly? And the answer to this question is quite an individual matter

---

[1] The New England and Middle states were assigned positions as separate groups partly because of their long recognized geographical unity and partly because there were no apparent reasons for uniting the two groups or subdividing either The third group includes the remaining states of the Atlantic and Gulf coast. The group of states lying wholly or principally east of the 95th meridian *and not included in the first three groups* have been designated the ' Interior and Lake states A fifth group comprises the remaining states and territories with the exception of California which on account of the very high death rate of a portion of the state is assigned a position as a distinct region by itself

Dr Carl Schroder writes, under date of December 4, 1884

> In my opinion, withdrawal from practice is not necessary, but can be resumed after a thorough cleansing

Prof Nussbaum writes from Munich, November 8, 1884

> I have very often made ovariotomies with the best results, the day after a post mortem, but I have always made a thorough disinfection of my hands, and changed my clothes
> GEHLIMRATH VON NUSSBAUM

At the beginning of this paper, I referred to the noteworthy publication of Prof Volkmann in the *Centralblatt fur Chirurgie* of 1880 In his letter to me, dated Halle, December 5, 1884, he says

> I hold the same views to day as at that time A surgeon who *disinfects* himself *well*, can immediately after making a post mortem examination, or dressing a septic wound, undertake a laparotomy, do a trepanning, examine a patient with a fresh complicating fever, or dress a penetrating wound of the joint Every morning from six to eight, during the summer, I am obliged to give the students operations on the cadaver, and from ten to three, I am busy in the Hospital operating and dressing wounds, and I have never yet infected a patient In the winter, I have no operations on the cadaver to make Comparing my results in the clinic, I can assure you, that the mortality in summer is not greater than in winter
> RICHARD VOLKMANN

In conclusion, I present the following characteristic reply, which epitomizes the subject under discussion

> If you have *thoroughly* disinfected yourself, you can immediately enter upon obstetric practice *Time* does not destroy septic dirt
> ESMARCH
> Kiel, December 5, 1884

GEOGRAPHICAL PATHOLOGY OF CONSUMPTION[1]

BY G W McCASKEY, A M, M D,
PROFESSOR OF DISEASES OF THE THROAT AND CHEST FT WAYNE COLLEGE OF MEDICINE FT WAYNE IND

I

The deaths from consumption in the United States, in the year 1880, numbered 91,551, almost one-eighth the entire mortality from all causes This pregnant fact seems to furnish at once an incentive and excuse for the following endeavor to ascertain what definite relation there is, if any such exists, between this disease and certain climatic conditions in the United States

An obstacle is encountered at the very threshold of the inquiry in our defective system of registration It must be admitted, in the first place, that many cases reported as consumption have no relation to that disease It is also well known that many cases are not reported at all The migratory character of a considerable body of the population—especially its westward flow—is also a disturbing element in a statistical study And, finally, those regions, the climates of which have secured the reputation of being curative of consumption, have their death rate from this disease greatly increased by the immigration of a large number of the rapidly fatal type of cases The last named source of error can not be removed, as there are no available records of its extent It is only found, however, in a small number of localities, and if it could be entirely removed the only effect, so far as the present study is concerned, would be to increase the force of the conclusions drawn After recognizing its existence, therefore, it may safely be dismissed

So far as the other sources of error are concerned, while their existence is to be deplored, they will not impair deductions made from data which need only be comparatively correct Indeed, for purposes of comparison the absolute death-rate is quite unnecessary The death rates of different localities might just as well be expressed in units, taking as an arbitrary standard either the highest or lowest death rate found in any given locality, the mean death-rate between these two extremes, or the average of all There is little doubt that the census report gives data which are at least relatively correct, and which can therefore be relied upon for the purposes of a comparative study The area of the United States is too vast and complicated for detailed analysis within the intended scope of this paper By a general survey, however, certain broad facts may be collated, and certain inferences drawn, which may not be without value

A basis for comparison, at once practical and scientific, is readily formed by placing side by side (1), the mortality from consumption, (2), the mortality from all causes and (3), the percentage of the former to the latter These data will be ascertained for the United States for groups of States, for individual States, and, in some instances, for parts of States. Notwithstanding the wide variations found in different parts of these extensive regions, each has its average of annual rain fall, of elevation, of mean annual temperature, and the like, which, taken together, or perhaps singly, are entirely characteristic of itself These distinctions are broad enough to completely overshadow local anomalies, even if these did not, in accordance with a well recognized law, correct one another by mutual antagonisms

With the exception of four states (California, Florida, Louisiana and Pennsylvania) and three territories (Arizona, Nevada and Montana), the death rate from all causes was larger in 1880 than in 1870 The result of this increase upon the part of the individual states is to raise the death-rate of the United States from 13 3 per 1,000 in 1870 to 15 1 in 1880, an increase of 13½ per cent Curiously contrasting with this fact, the death-rate from consumption either shows no change or a slight increase in all except fifteen of the states and territories. The average for the United States, which shows no change whatever, remaining 1.8 per 1,000 for each year, only illustrates and confirms the remark that the local variations neutralize one another, thus making no change in the general result.

---

[1] Read before the Indiana State Medical Association

The following table has been compiled from the census reports for 1870 and 1880.

TABLE I.

Showing death-rate (1) from all causes, (2) from consumption, and (3) percentage of latter to former.

	Deaths per 1000 of Population		Deaths from Consumption per 1000 of Population		Percentage of Deaths from Consumption to all Deaths	
	1870	1880	1870	1880	1870	1880
UNITED STATES	13.3	15.1	1.8	1.8	14.1	12.1
Alabama	10.8	14.2	.76	1.4	7.0	9.0
Arizona	26.1	7.2	0.1	.4	.4	6.9
Arkansas	12.6	18.4	.9	1.[illegible]	7.0	6.4
California	16.1	13.4	2.2	2.2	13.8	15.6
Colorado	9.4	13.1	0.8	1.1	8.5	8.2
Connecticut	12.6	14.7	2.3	2.2	17.9	15.2
Dakota	7.1	0.6	.9	.8	12.8	8.9
Delaware	12.5	15.1	2.4	2.4	18.9	11.1
District of Columbia	15.3	24.5	3.4	4.4	21.9	19.0
Florida	12.1	11.7	0.7	1.0	5.7	8.0
Georgia	11.5	13.9	0.7	1.1	6.4	8.0
Idaho	3.3	0.1	0.3	0.7	10.0	6.1
Illinois	13.3	14.5	1.4	1.5	10.8	13.3
Indiana	10.5	15.7	1.7	2.0	15.5	12.7
Iowa	8.1	11.0	1.1	1.2	13.7	9.9
Kansas	12.5	15.2	1.1	1.1	9.0	7.3
Kentucky	10.9	14.4	1.9	2.3	17.4	15.7
Louisiana	20.0	15.4	1.9	1.6	9.7	10.7
Maine	13.3	14.8	3.2	2.8	25.6	19.2
Maryland	12.4	18.1	2.1	2.5	17.2	14.1
Massachusetts	17.7	18.5	3.5	2.9	19.9	15.7
Michigan	9.4	12.0	1.6	1.6	16.4	13.2
Minnesota	8.0	11.6	1.0	1.1	13.0	9.4
Mississippi	11.1	12.9	.8	1.1	7.6	8.[illegible]
Missouri	16.3	16.9	1.6	1.7	9.7	0.1
Montana	0.0	8.0	.8	.5	9.2	5.4
Nebraska	8.1	13.1	.7	.9	8.7	7.0
Nevada	14.5	11.7	.7	1.0	4.8	8.4
New Hampshire	13.5	16.1	3.0	2.5	22.2	15.7
New Jersey	11.7	16.3	2.0	2.3	17.2	14.2
New Mexico	12.8	20.3	.5	.4	3.8	2.5
New York	15.8	17.4	2.6	2.5	16.7	14.6
North Carolina	9.8	15.4	1.1	1.5	11.7	9.1
Ohio	11.1	13.3	2.0	1.9	17.7	13.9
Oregon	6.9	10.7	1.2	1.3	18.0	12.1
Pennsylvania	14.9	10.2	2.1	1.0	14.2	12.6
Rhode Island	12.6	17.0	2.5	2.4	20.1	14.7
South Carolina	10.5	15.8	.9	1.6	8.9	9.1
Tennessee	11.3	16.8	1.9	2.4	16.7	14.5
Texas	13.7	15.5	.8	1.0	5.9	6.6
Utah	10.3	16.7	.7	.5	7.1	2.9
Vermont	10.7	15.1	2.2	2.4	20.2	16.0
Virginia	12.4	16.3	1.7	2.0	13.8	12.1
Washington	9.3	10.5	1.5	1.3	15.7	12.2
West Virginia	9.1	11.9	1.6	1.6	17.6	13.1
Wisconsin	9.4	12.1	1.2	1.3	13.2	10.5
Wyoming	8.1	9.1	.4	.3	5.4	2.6

The well known prevalence of the disease in New England, and its rarity in the south Atlantic and Gulf coast states, becomes at once apparent. It is also observed that, with numerous undulations, it is somewhat evenly distributed over the remaining states east of the 95th meridian. In the vast region west of this meridian, comprising more than one-half the territory of the United States, and about one-fifteenth of its population, it is, with the exception of a portion of California (Texas is included in another division), even less prevalent than in the south Atlantic and Gulf coast states.

The division into groups indicated by the following table is intended to throw together adjacent states which have something in common regarding their consumption death-rate, with the view of studying some of their more important climatic conditions for the purpose above mentioned. The boundary line between these different regions, to be absolutely correct, would often, or perhaps generally, intersect the different border states. The difficulties in the way of securing statistical data for parts of states were so great, however, as to render such a division impracticable. The number of these groups, furthermore, could have been indefinitely increased, often comprising a few counties instead of several states. This could only have led to confusion, and been utterly barren of results.

TABLE II.

Showing death rate (1) from all causes, (2) from consumption, and (3) percentage of latter to former in groups of States.[1]

	Deaths per 1000 of Population from all causes		Deaths per 1000 of Population from Consumption		Percentage of Deaths from Cons'n to Deaths fr. all causes	
	1870	1880	1870	1880	1870	1880
New England States	14.6	16.7	3.0	2.6	20.8	16.1
Middle States	14.9	16.2	[illegible].4	2.2	15.8	13.8
S. Atlantic and Gulf States	12.2	14.6	1.0	1.3	8.1	8.8
Interior and Lake States	11.5	14.6	1.6	1.8	14.2	12.0
States and Territories W. of 95th Meridian except Texas and California	10.8	13.8	0.9	1.0	8.5	7.1
California	16.1	13.4	2.2	2.2	13.8	15.6

Having marked out the different regions for individual study, and noted the high mortality from consumption in the New England and Middle states, and the low mortality in the south Atlantic and Gulf states, and the western half of the continent, it now remains to study the climatic conditions of each group in their bearings upon this disease.

Temperature.—Temperature may first be considered, as one of the most prominent factors in that combination of conditions called "climate." The mean annual temperature will be taken as the standard of comparison. In making estimates of the mean annual temperature of a group of states, it should be constantly born in mind, that they are only the averages of more or less widely diverging extremes. The same caution is necessary in considering the like estimates of annual rain fall, and altitude which are to follow. As absolute measurements, they are not reliable, as comparative statements—and it is for purposes of comparison only that they are introduced—they are believed to be approximately correct. A glance at the isothermal, isohyetal, and hypsometric charts, especially the first two, will illustrate in a very forcible manner, the difficulties encountered. Taking the entire Atlantic and Gulf Coast line, we find a very marked decrease in its consumption death rate as the mean annual temperature rises This is shown in a general way by the individual states, but more distinctly by comparing the groups into which these states have been divided for the purpose of this inquiry Commencing with the New England States, we find a mean annual temperature of 40 to 48 degrees Fahr, with a consumption death rate of 2 6 to 3 0 per thousand of the population, or 16 1 to 20 8 per cent of all deaths Passing down to the Middle States, we find that the mean annual temperature rises about four degrees—44 to 52 degrees Fahr, the consumption death rate falling to from 2 2 to 2 4 per thousand, or 13 8 to 15 8 per cent of the deaths from all causes This change is not due to any decrease in the general mortality, for this remains practically the same as in the New England States, being 3 greater in 1870, and 5 less in 1880 Still farther down (South Atlantic States), the mean annual temperature rises to from 60 to 76 degrees Fahr, and the consumption death-rate falls to from 1 to 1 3 per one thousand, or 8 1 to 8 8 per cent of all deaths Here again the decrease in the consumption death rate is out of all proportion to the decrease in the general death-rate—the former being 41 and the latter 10 per cent Southern Louisiana presents a notable departure from this average, by showing a very large mortality from consumption

---

[1] The New England and Middle states were assigned positions as separate groups partly because of their long recognized geographical unity and partly because there were no apparent reasons for uniting the two groups or subdividing either. The third group includes the remaining states of the Atlantic and Gulf coast. The group of states lying wholly or principally east of the 95th meridian *and not included in the first three groups* have been designated the "Interior and Lake states." A fifth group comprises the remaining states and territories with the exception of California which on account of the very high death rate of a portion of the state is assigned a position as a distinct region by itself.

On the contrary, when we compare the Interior and Lake states as far west as Kansas and Nebraska in different latitudes under the same meridian, we find a general increase in the consumption death rate as we pass from North to South Taking the states traversed by the 85th meridian, the death rates per one thousand of the population for 1880, were as follows Michigan, 1 6, Indiana, 2 0, (Ohio by its side 1 9), Kentucky, 2 3, and Tennessee 2 5 In 1870, however, no difference was reported between Kentucky and Tennessee Again, taking the states traversed by the 94th meridian, the death-rates are as follows Minnesota, 1 1, Iowa, 1 2, Missouri, 1 7, but here the rise ceases, and Arkansas falls to 1 2 while its mean annual temperature is about 20 degrees Fahr higher than that of Minnesota On the 100th meridian it is as follows Dakota, 8, Nebraska, 9, and Kansas 1 1, thus showing a slight gradual increase with the rise of temperature But the relative positions of Dakota and Nebraska in the scale, were reversed in 1870, while Arizona and New Mexico, with about the same temperature as Tennessee, have about the lowest death-rate in the United States, while Tennessee has nearly the highest Southern California, with a mean annual temperature considerably higher than the northern portion of the state, is almost exempt from the disease, while it is very prevalent in the latter portion of the state Oregon and Washington Territory with a temperature more than 20 degrees lower than that of Arizona, have a mortality from consumption more than three times as great

What, then, are the inferences to be drawn from these facts, regarding the etiological relation of different mean annual temperatures to consumption as indicated by its mortality? From the Atlantic coast alone we are justified in concluding that consumption diminishes, almost *pari passu*, with a rise of temperature This is rather the statement of a fact than an inference But, on the other hand, that temperature alone is either unimportant or entirely masked by other conditions, is abundantly shown The same isothermal belt, for instance, traverses Maine and Minnesota, the consumption death-rate in the latter being about one-third that of the former That the difference is not dependent upon the general healthfulness of Minnesota is conclusively proven by the fact that its death rate from all causes is three fourths that of Maine The question of temperature is almost inextricably complicated with other atmospheric conditions of scarcely less importance But in the face of the foregoing facts, the view that low temperatures protect from phthisis, while high temperatures favor its development, is clearly untenable The facts obtained both from the Atlantic and Pacific coasts clearly point in exactly the opposite direction, and it ought certainly to be anticipated that repeated congestions, which low temperatures so commonly produce, will aggravate the disease, and make it run a much more rapid course Not only so, but in many instances the disease apparently has its origin in such a congestion of the bronchial mucous membrane, called a "cold" Whether a specific poison is essential or not, without the "cold" the consumption would probably not have developed

The view that a warm climate is the one in which consumptive patients will thrive the best, and those not consumptive be least likely to become so, seems equally, if not more rational upon *a priori* grounds It is, moreover, quite as well sustained by a study of the facts already presented It must be confessed, however, that neither view can be established by evidence derived from this source So conflicting is this evidence, that one feels little surprise at the therapeutical antithesis enunciated in a recent monograph, viz that extreme heat and cold are perhaps equally efficacious in cutting short the disease[1]

But for the consumptive patient seeking a climate where he may live the longest and live the best, it would seem wiser to go where the vessels of the skin were least liable to be constricted by external cold, with the necessary sequence of determination of blood to internal organs One such occurrence may produce irreparable, and perhaps rapidly fatal mischief Fortunately, the false and pernicious doctrine that consumption is incurable has been completely overthrown The question is, therefore not always between a rapid and a lingering death, but often between death and partial or complete recovery, which may be either temporary or permanent, the very possibility of which makes the subject of treatment so much the more grave and important

The frequency and extent of sudden changes of temperature will be passed without discussion, because of insufficient data, and the fear of extending too far the limits of this paper

---

[1] "Consumption as a Contagious Disease" D H Cullimore F R C S

MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS

Clinical and Physiological Investigations on Paraldehyde —Dr Vincent Cervello gives the result of his experiments with this drug in the *Archives Italiennes de Biologie*, Tome VI, Fasc 2, as made upon himself and his assistants The drug was taken in the early morning, when fasting, and three to four hours after breakfast or dinner The dose varied from 1 to 3 grammes in aqueous solution The absorption of paraldehyde through the alimentary canal he found to be very rapid, only five minutes being necessary to produce its general effect, and in five minutes more sleep was often produced Absorption took place with similar rapidity by the rectum, hypodermically it was delayed somewhat The character of the sleep produced was strictly physiological the awakening was natural—no malaise, or pain in the head and the subjects returned readily to their ordinary occupations, except that when taken in the morning on the evening of the same day unusual sleepiness occurred early The sleep was profound for fifteen minutes to an hour, and then a gradual diminution until awake When kept awake after taking a dose the somnolent feeling remained for an hour and a half or three quarters The radial pulse remains normal in amplitude, diminishing about four beats per minute, except in the profound sleep, when it is reduced six to ten beats per minute Bergesio and Mosso have studied in the brain of an individual who, having had a portion of the temporal bone resected for the extirpation of a sarcoma, a cicatrix remained in the antero superior portion of the left temporal fossa, by means of which Mosso's method could be used to show the effects on the cerebral pulse during sleep of paraldehyde, morphia and alcohol With paraldehyde, the volume of the brain diminished and the blood pressure in the organ was lowered Respiration was not modified when awake, when asleep the number of respirations diminished one or two per minute, and became also somewhat less ample The temperature remained at normal while awake, lowering a few tenths during sleep Healthy persons suffer no derangement of the alimentary canal from its prolonged use, no loss of appetite The absorption of paraldehyde is too rapid to permit of its decomposition into aldehyde in the stomach, which is the view held by Limousin Its principal elimination is by the pulmonary surface, —the expired air having a peculiar odor, the urine also carries a similar odor

Dr Cervello regards this agent as useful as a hypnotic, as a sedative, and as an antagonist to strychnia poisoning, and to diseases the symptoms of which resemble the latter, and he gives cases to support his views He advises its use especially in affections of the heart where chloral is absolutely contra indicated, giving one case of hypertrophy with myocardial degeneration, mitral stenosis and insufficiency of the aortic semilunar valves, where great relief was given He calls it a true heart tonic Careful examinations of cases of albuminuria show in some no alteration, in others a diminution of the amount of albumen, as indicating in the latter an amelioration of the general condition

The counter indications for its use seem, to be reduced to the minimum by Dr Cervello, but ulcerations in the stomach are affected unfavorably by it, nor is it well supported in the last stages of pulmonary phthisis with ulcerations of the larynx, in the case of a child he was obliged to stop its use from the excitable cough, due perhaps to direct irritation of the ulcerated mucous membrane

As to the dose, 3 grammes furnishes the medium amount, but there are many individuals who are susceptible to 1 gramme or even less He does not find that patients become readily accustomed to its effects, so as to require increased doses When given, the paraldehyde must be diluted, as it produces a burning sensation in the mouth Guyl has given it hypodermically, and finds that it produces a brisk irritation not lasting, nor followed by any inflammatory reaction, the hypnotic effect was moderate, even after the injection of 3 grammes Cervello has only used it on animals in this way, and they seemed to suffer considerably The paraldehyde of commerce is often impure by containing acetal, which renders it disagreeable and less active, and valeric aldehyde, which has a poisonous action

The Oil of Eucalyptus in Typhoid Fever —Dr Leighton Kesteven has been using this drug in the Brisbane General Hospital, and speaks highly (*Practitioner*, May, 1885) of its effects He used it as a germicide in an epidemic of typhoid fever, giving ten minims made up into an emulsion with mucilage every four hours In about eighteen months he attended 220 cases of typhoid, with but four deaths, and of these there was in every case an unfavorable circumstance Without being absolutely nauseous, this medicine does not agree well with all stomachs, but this difficulty can be entirely overcome by careful emulsification, and the addition of half a drachm each of aromotic spirits af ammonia, spirits of chloroform, and glycerine, the latter entirely removing the rough semi resinous taste of the oil The effects of this medicine are, in brief, as follows

1 It steadily and permanently reduces the force and frequency of the pulse In one case the pulse, from being a sledge hammer pulse of 120, went to 90 within an hour of the first dose of the medicine, and never went above 90 again

2 Lowering of the temperature This occurs less rapidly, and might be entirely secondary to, and dependent on, the lowering of the pulse

3 The beneficial effect on the tongue is very marked, almost immediately alleviating the distressing dryness so universal in typhoid, and removing the thick brown coating, leaving but proportionately little fur, and frequently clearing the tongue entirely in a very short time

4 The skin, along with the reduction in its temperature, becomes moist and soft, in contrast with the harsh, dry, hot skin so frequent and persistent, conferring a corresponding increase of comfort to the sufferer

is particularly the case when the interval of time is 10 years and longer

2 Persistent vomiting manifests itself more frequently after a long interval than after a short one

3 There is less liability to ante-partum hæmorrhage

4 There is a relative or absolute increase in the liquor amnii

5 The duration of labor is greater, and relates particularly to the first period, the other two being but little modified If the interval be more than 10 years, the duration of the third period is increased, and labor appears to be as long, or even longer, than with primaparæ

6 The duration of labor with biparæ is about 10½ hours

7 In cases of long interval feebleness of contractraction is more marked Lacerations of the perinæum are more frequent, as also post partum hæmorrhages, adhesions of the placenta, diseases of the kidneys, and increase in frequency of œdema of the extremities without albuminuria

8 Inflammations of the breast diminish with the length of interval, as well as the amount of milk

9 Morbidity and puerperal mortality increase

10 Puerperal mania does not seem to be increased

11 The longer the interval, especially after 10 years, the less prospect is there for the pregnancy to reach full term The length of the interval has no sensible influence on the frequency of normal or abnormal presentations of the fœtus It favors the birth of girls rather than boys The child is larger and longer The shorter the interval the greater the disposition to prolapsed funis Twin pregnancies increase with the interval, as also fœtal malformations

12 The longer the interval the greater the fœtal mortality This is applicable to still births, to children dying immediately after delivery, and to those who die in the eight days after delivery —*Archives de Tocologie*, May, 1885

FACE AND BROW PRESENTATIONS —DRS BEUMER and PEIPER contribute to the *Archiv fur Gynäkologie* (Band xxiii, Heft 1), an account of the midwifery clinic at Griefswald, under Professor Penn
the last 25 years The most interesting
instalment given is that which relates to th
face and brow presentation observed (1)
sentations —The births in this clinic in 25 yea
bered 6,336, and among these occurred 54 ca
face presentations, a proportion rather above
average The authors consider in the light of the
cases, some of the causes o
these presentations First,
theory, that they are due to r
fœtus, producing extension of t
grasped by the wall of the uteru
pelvic inlet, a theory in accordanc
asserts that face presentations cann
centa prævia, nor with a dead fœtu
tions are negatived in the paper befc
record of cases in one of which face
occurred with placenta prævia, and in th
a decomposing fœtus The authors nex

the dependence of face presentation upon pelvic contraction, a condition said by Winckel to be present in rather more than a fifth of all face presentations Our authors, out of 54 face cases, find contracted pelvis present in only 4 They therefore agree with Hecker, in thinking pelvic contraction only an infrequent cause of this presentation Hecker's theory, that it is often due to a dolicho cephalic head, is the next subject for discussion It is, as every one knows, common for children born after face presentations to have heads longer than common, but this is mainly due to compression during labor Drs Beumer and Peiper nevertheless think that in some cases face presentation may be due to peculiarities in the shape of the head, either greater length, or unusual width in the biparietal measurement They refer to cases published by Fritsch in which not only was the biparietal measurement unusually large at the time of birth, but in the first few days of life still further increased, this latter fact proving that the increase was not produced by pressure during labor Out of the 54 cases in the Griefswald clinic, in 6 the head was unusually large, and in two there was hydrocephalus Our authors give three cases in which face presentation was primary, that is present before the beginning of labor In one it was present 5 days, in another 10 days, and in another 8 days, before the commencement of the pains The infantile mortality was 6 out of 54 In 5 cases forceps were used, 7 times delivery was effected by turning, twice by perforation, and in one case the "accouchement force" was resorted to, with a fatal result to the mother The special therapeutical measure which the authors favor in the most difficult cases, viz those with the chin posterior, is the rotation of the chin forward with the forceps This was attempted in two of the cases, in one with success, in the other without, perforation being then necessary

(2) *Brow presentations* —Of these no less than 9 occurred out of the 6,336 cases Six of the children were still-born, and three of the mothers died, another of them being left with a vesical fistula, facts which sufficiently show the difficulty of labor with the head presenting in this position In three cases,
lab minated by the natural efforts, in two of
assing through the pelvis in the brow
r the brow presentation being
in vertex Three were
and one by
the paucity
on these
that, if
hould
ng,

absolute extinction of the voice of several days' standing was completely restored by one application of the heated points.

CONSERVATIVE SURGERY IN ARTICULAR TUBERCULOSIS.—M. OLLIER (*Revue de Chirurgie*), terminates his remarkable work upon direct interference in articular tuberculosis with the following series of conclusions:

1. The chronic osteo-arthrites which we group to-day under the name of articular tuberculosis, present numerous clinical varieties which require different modes of treatment. Some are curable by the abrasion or destruction, locally, of the tuberculous products without sacrifice of the surrounding healthy bone tissue; others require the ablation of the bony extremity which is the seat of the disease, that is to say, a typical resection; others again must be treated by amputation of the limb.

2. Whatever may be the views of to-day upon the infectious nature of tuberculosis, what is, or appears to be local tuberculosis in man, is noted from its resting indefinitely restricted to its original seat and with little tendency to generalise. All cases of articular caries are not tuberculous, but the greater
part are closely related to that form of disease. The
ogress of tuberculosis is very variable, according
the subject. The question of individual consti-
very important one, the same germ devel-
rting, according to its field for culture.
he local tuberculosis and in all the cir-
ppurative lesions, whatever may be
onservative operations on the limbs
perations on the bony tissue are
d. We are guided in our choice
ling to the extent and seat of the
e purpose of removing as com
focus which might become at
departure for secondary infec
f new colonies of bacteria or

ire of osseous and articular
ved in infancy and adoles
ation or transformation of
emoving by surgical means
e follow the method indi-
she cures these affections.
With the adult, the
r osteo arthritis is much
lesions are more fre
ore menacing.
ood that these various
cially indicated, with
performed by prefer-
t interfere with the
f conjugation. Am
necessary in middle
eat difference in the
racter of the artic-
gress of the tuber-

e as possible should
plied to the gener-
a leads to most de-

plorable therapeutic errors. Among the conservative operations, arthrotomy, abrasion, gouging, and tunneling of the bone, which give such good results in children, should not be undertaken with the adult except with great reserve. When lesions that are manifestly tubercular are to be dealt with, the whole of the bony extremity must be removed to obtain a rapid and complete cure.

7. In spite of antisepsis, the economical operations on the bony tissues are graver in the large articulations than the typical resections, and they are less efficacious. Uncertain in their results, on account of the possible diffusion of the tuberculous focus, they are always open to the fear of a local relapse, they expose the cases to a generalization of the tuberculosis, not only more than amputation, but more than the typical resection, which removes the habitual seat of the tubercular foci and extends beyond their limits.

8. The rule of removing all of the tubercular products does not implicate the supporting tissues which only present the lesions of chronic inflammation. In removing the totality of the fibrous articular tissues, there results from the resection very defective orthopædic and functional changes. These tissues must be preserved and modified ulteriorly, if they become fungous. Therefore an immediate reunion of the parts after resection in tubercular osteo arthritis, is not desirable; there must be reserved a means of modifying or destroying the fungous granulations which may re-form.

9. Amputation is undoubtedly the operation most likely to put secondary infections out of the question; but it cannot be considered as a radical operation, on account of the persistence of the deeper and inaccessible glands which are always more or less involved in the older lesions. It is particularly indicated in osteo arthritis of the lower extremities, for it is important to sustain promptly the patient against the alterations of nutrition which result from prolonged inaction and lying in bed.

10. When an articular resection has been followed by a local cure, which is complete and permanent, and a stable cicatricial tissue has replaced the fungous tissue, the patient is no more exposed than after an amputation to the invasion of the internal organs. This permanence of the local cure, whilst the internal organs might become invaded, is the great argument in favor of resection. The patient has preserved his limb, and finds himself in as favorable a condition as after an amputation, so far as secondary infection is concerned.—*Journ. de Médecine de Paris*, May, 1885.

OBSTETRICS AND GYNÆCOLOGY

THE INFLUENCE ON LABOR OF THE INTERVAL BETWEEN FIRST AND SECOND LABORS.—LUDWIG KLEINWAECHTER (*Zeitsch. f. Geb. u. Gynak.*, I. XI, cap. I), gives the following:

1. Women who become pregnant for the second time, after a long interval of time (6 to 16 years), become subject to sickness, whether accidental or dependent upon pregnancy, much more readily than those who conceive more rapidly (1 to 6 years), this

Tamponing the Nasal Fossæ with Plugs Soaked in Turpentine.—Dr. L. Bodeir, in the *Jour. de Med. et de Chir. Pratique* for May, 1885, praises this as a simple and efficacious process, which he has often employed to arrest nasal hæmorrhage. This method occurred to him after a case in which he had used Belloc's sound and plugged the nares so effectually that for ten days the blood, not being able to escape anteriorly or posteriorly, welled up through the lachrymal canals, two little streams of blood running down the cheeks for about eight days. The case was one affected with slight fever, but resulted in the formation of petechiæ, intestinal hæmorrhage and death. Comprehending from this that tamponing alone would not suffice, and satisfied of the insufficiency of perchloride of iron, he made a tampon of small balls of wadding attached to each other by a string like the tail of a kite (in other words, the old classic vaginal tampon), soaked the balls in turpentine, squeezed them afterwards, and filled the anterior nasal fossæ with them, without regard to the posterior fossæ, which remained open. The heat causes a part of the turpentine to vaporize, and the most inaccessible folds of the fossæ come under its irritating influence, and by this means he has treated successfully twenty or more cases under diverse circumstances.

Hygrine or Cocaine.—Cocaine, the wonderful drug which anæsthetizes mucous membranes, and has simplified many minor operations on the eye, is very costly. Hence we must not be surprised to hear that, in Paris at all events, the manufacturers endeavor to obtain as much of the alkaloid as possible by submitting the coca leaves to a second process of exhaustion. The result is very similar to that which follows attempts to make a second infusion out of already exhausted tea leaves. Certain substances are extracted which are not cocaine, but have nevertheless a remarkable effect on the pupil, causing it to dilate in a marked manner. These substances are derivatives of hygrine, most of which are mydriatics. Eserine is not an efficient antagonist to atropine, but it is to these derivatives of hygrine. Our readers may have observed that different observers have made different statements with regard to the action of cocaine on the pupil. Some have asserted that cocaine has a powerful mydriatic effect, which others have not noticed. This difference may be explained by the above mentioned facts.—*Lancet*, May 16, 1885.

Glycerine as a Tænicide.—Dr. G. A. McCallum, of Dunville, Ontario, writes to the *British Medical Journal*, of June 13, that glycerine is the most efficient tænicide that he has yet seen. In some cases it may be necessary to follow the glycerine with a gentle purgative. He has found that when the head of the worm is placed in glycerine, it dies almost immediately. This fact is especially important in treating cases of tænia in children.

MEDICINE

Lead-Poisoning in Infants.—Dr. J. Lowey reports three cases of lead poisoning occurring in infants which deserve to be widely promulgated, especially among the laity, to avoid the causes leading to the intoxication.

1. A child of five weeks of age, nourished by a wet-nurse, was suddenly seized with violent colicky paroxysms, accompanied by a bluish color of the skin. The cause was found to be the lead containing face powder of the child's nurse.

2. Another infant of the same age showed similar symptoms, which were traced to the use of lotions of Goulard's extract by its nurse, which she applied to her sore breast, without cleaning the latter thoroughly before nursing her child.

3. An infant of three months of age was taken suddenly ill with distinct symptoms of lead-poisoning. An examination revealed that the nursing bottle used by the infant contained a lead cork, and that on account of a rupture in the rubber tube passing through this metal cork the lead came in direct contact with the milk.—*Wiener Medizinische Presse*, xxiv. 49; *Therapeutic Gazette*, May, 1885.

SURGERY

A New Treatment for Goitre.—The new treatment used by Dr. A. Weiss (*Berlin Klin. Wochenschrift*, No. 2, 1885), is the application of heated points to the surface of the tumor. By means of a Paquelin apparatus with a pointed iron, he makes punctures about one centimetre apart, the iron being at a white heat. The burns result in little scabs of one to three millimetres, which fall off in a few days, leaving behind them cicatrices which are at first red and then white. If the iron is at a white heat there is but little pain produced, and the consecutive treatment consists simply in covering the wound with a layer of wadding. The operation is repeated every six or eight days until the disappearance of the goitre, which requires, according to circumstances, from six to twelve applications. At the same time a little iodide of potassium is given, but this is not essential. This treatment is particularly beneficial in endemic parenchymatous goitre, in cystic goitre it is not so much so. Sometimes during treatment the goitre ceases to diminish; he then applies, immediately after the operation, a layer of vaseline over the burns; in this way suppuration is set up under the scabs, which hastens the cure. In explaining the curative action Dr. Weiss considers that the heated points provoke an excitation of the terminal nerve filaments, which causes a contraction of the muscular coat of the vessels, resulting in an arrest of nutrition and atrophy of the hypertrophied glandular substance. In one case where the goitre was so covered by a network of large vessels that Prof. Luke could not administer an injection of iodine or arsenic, Weiss observed, after four or five applications of the heated points, a diminution in the calibre of these same vessels, which became normal. In this same case he applied the heated points to a greatly dilated vein in the axilla, and the next day noted a diminution in its volume. He is inclined to use this treatment in other affections, as catarrh, affections of the pleura. In one case of laryngo tracheal catarrh, an absolute extinction of the voice of several days' standing was completely restored by one application of the heated points.

Conservative Surgery in Articular Tuberculosis.—M. Ollier (*Revue de Chirurgie*), terminates his remarkable work upon direct interference in articular tuberculosis with the following series of conclusions:

1. The chronic osteo-arthrites which we group to-day under the name of articular tuberculosis, present numerous clinical varieties which require different modes of treatment. Some are curable by the abrasion or destruction, locally, of the tuberculous products without sacrifice of the surrounding healthy bone tissue; others require the ablation of the bony extremity which is the seat of the disease, that is to say, a typical resection; others again must be treated by amputation of the limb.

2. Whatever may be the views of to-day upon the infectious nature of tuberculósis, what is, or appears to be local tuberculosis in man, is noted from its resting indefinitely restricted to its original seat and with little tendency to generalise. All cases of articular caries are not tuberculous, but the greater part are closely related to that form of disease. The progress of tuberculosis is very variable, according to the subject. The question of individual constitution is a very important one, the same germ developing or aborting, according to its field for culture.

3. It is in the local tuberculosis and in all the circumscribed suppurative lesions, whatever may be their cause, that conservative operations on the limbs and economical operations on the bony tissue are particularly indicated. We are guided in our choice of operation, according to the extent and seat of the lesions, and with the purpose of removing as completely as possible a focus which might become at any time the point of departure for secondary infection by the migration of new colonies of bacteria or other infectious germs.

4. A spontaneous cure of osseous and articular tuberculosis is often observed in infancy and adolescence; it acts by elimination or transformation of the morbid products. In removing by surgical means the tubercular products, we follow the method indicated to us by nature when she cures these affections by spontaneous elimination. With the adult, the spontaneous cure of tubercular osteo-arthritis is much rarer, the coexisting visceral lesions are more frequent and the generalization more menacing.

5. It is in infancy and childhood that these various conservative operations are especially indicated; with the child typical resections are performed by preference, operations which will not interfere with the growth of bone by the cartilage of conjugation. Amputations are more frequently necessary in middle life and old age; but there is a great difference in the indications, according to the character of the articulation itself and the clinical progress of the tuberculosis.

6. The idea of removing as little as possible should always guide the surgeon; but applied to the generality of tubercular lesions this idea leads to most deplorable therapeutic errors. Among the conservative operations, arthrotomy, abrasion, gouging, and tunneling of the bone, which give such good results in children, should not be undertaken with the adult except with great reserve. When lesions that are manifestly tubercular are to be dealt with, the whole of the bony extremity must be removed to obtain a rapid and complete cure.

7. In spite of antisepsis, the economical operations on the bony tissues are graver in the large articulations than the typical resections, and they are less efficacious. Uncertain in their results, on account of the possible diffusion of the tuberculous focus, they are always open to the fear of a local relapse, they expose the cases to a generalization of the tuberculosis, not only more than amputation, but more than the typical resection, which removes the habitual seat of the tubercular foci and extends beyond their limits.

8. The rule of removing all of the tubercular products does not implicate the supporting tissues which only present the lesions of chronic inflammation. In removing the totality of the fibrous articular tissues, there results from the resection very defective orthopedic and functional changes. These tissues must be preserved and modified ulteriorly, if they become fungous. Therefore an immediate reunion of the parts after resection in tubercular osteo-arthritis, is not desirable; there must be reserved a means of modifying or destroying the fungous granulations which may re-form.

9. Amputation is undoubtedly the operation most likely to put secondary infections out of the question; but it cannot be considered as a radical operation, on account of the persistence of the deeper and inaccessible glands which are always more or less involved in the older lesions. It is particularly indicated in osteo-arthritis of the lower extremities; for it is important to sustain promptly the patient against the alterations of nutrition which result from prolonged inaction and lying in bed.

10. When an articular resection has been followed by a local cure, which is complete and permanent, and a stable cicatricial tissue has replaced the fungous tissue, the patient is no more exposed than after an amputation to the invasion of the internal organs. This permanence of the local cure, whilst the internal organs might become invaded, is the great argument in favor of resection. The patient has preserved his limb, and finds himself in as favorable a condition as after an amputation, so far as secondary infection is concerned.—*Jour. de Medecine de Paris*, May, 1885.

OBSTETRICS AND GYNÆCOLOGY

The Influence on Labor of the Interval Between First and Second Labors.—Ludwig Kleinwaechter (*Zeitsch. f. Geb. u. Gynak.*, T. XI, cap. I), gives the following:

1. Women who become pregnant for the second time, after a long interval of time (6 to 16 years), become subject to sickness, whether accidental or dependent upon pregnancy, much more readily than those who conceive more rapidly (1 to 6 years), this

is particularly the case when the interval of time is 10 years and longer

2 Persistent vomiting manifests itself more frequently after a long interval than after a short one

3 There is less liability to ante-partum hæmorrhage

4 There is a relative or absolute increase in the liquor amnii

5 The duration of labor is greater, and relates particularly to the first period, the other two being but little modified If the interval be more than 10 years, the duration of the third period is increased, and labor appears to be as long, or even longer, than with primiparæ

6 The duration of labor with bipara is about 10½ hours

7 In cases of long interval feebleness of contraction is more marked Lacerations of the perinæum are more frequent, as also post-partum hæmorrhages, adhesions of the placenta diseases of the kidneys, and increase in frequency of œdema of the extremities without albuminuria

8 Inflammations of the breast diminish with the length of interval, as well as the amount of milk

9 Morbidity and puerperal mortality increase

10 Puerperal mania does not seem to be increased

11 The longer the interval, especially after 10 years, the less prospect is there for the pregnancy to reach full term The length of the interval has no sensible influence on the frequency of normal or abnormal presentations of the fœtus It favors the birth of girls rather than boys The child is larger and longer The shorter the interval the greater the disposition to prolapsed funis Twin pregnancies increase with the interval, as also fœtal malformations

12 The longer the interval the greater the fœtal mortality This is applicable to still births, to children dying immediately after delivery and to those who die in the eight days after delivery —*Archives de Tocologie*, May, 1885

FACE AND BROW PRESENTATIONS —DRS BEUMER and PEIPER contribute to the *Archiv fur Gynakologie* (Band xxiii, Heft 1) an account of the midwifery clinic at Griefswald, under Professor Pennice, during the last 25 years The most interesting part of the instalment given is that which relates to the cases of face and brow presentation observed (1) *Face presentations* —The births in this clinic in 25 years numbered 6,336, and among these occurred 54 cases of face presentations, a proportion rather above the average The authors consider, in the light of these cases, some of the causes commonly assigned for these presentations First, they consider Braun's theory, that they are due to reflex movements of the fœtus, producing extension of the chin, which is then grasped by the wall of the uterus, and so fixed in the pelvic inlet, a theory in accordance with which Braun asserts that face presentations cannot occur with placenta prævia, nor with a dead fœtus These assertions are negatived in the paper before us, by the record of cases in one of which face presentation occurred with placenta prævia, and in the other with a decomposing fœtus The authors next consider the dependence of face presentation upon pelvic contraction, a condition said by Winckel to be present in rather more than a fifth of all face presentations Our authors, out of 54 face cases, find contracted pelvis present in only 4 They therefore agree with Hecker, in thinking pelvic contraction only an infrequent cause of this presentation Hecker's theory, that it is often due to a dolicho cephalic head, is the next subject for discussion It is, as every one knows, common for children born after face presentations to have heads longer than common, but this is mainly due to compression during labor Drs Beumer and Peiper nevertheless think that in some cases face presentation may be due to peculiarities in the shape of the head either greater length, or unusual width in the biparietal measurement They refer to cases published by Fritsch in which not only was the biparietal measurement unusually large at the time of birth but in the first few days of life still further increased, this latter fact proving that the increase was not produced by pressure during labor Out of the 54 cases in the Griefswald clinic, in 6 the head was unusually large, and in two there was hydrocephalus Our authors give three cases in which face presentation was primary that is, present before the beginning of labor In one it was present 5 days, in another 10 days and in another 8 days, before the commencement of the pains The infantile mortality was 6 out of 54 In 5 cases forceps were used, 7 times delivery was effected by turning, twice by perforation and in one case the "accouchement force" was resorted to, with a fatal result to the mother The special therapeutical measure which the authors favor in the most difficult cases viz those with the chin posterior, is the rotation of the chin forward with the forceps This was attempted in two of the cases, in one with success, in the other without, perforation being then necessary

(2) *Brow presentations* —Of these no less than 9 occurred out of the 6,336 cases Six of the children were still born, and three of the mothers died, another of them being left with a vesical fistula, facts which sufficiently show the difficulty of labor with the head presenting in this position In three cases, labor was terminated by the natural efforts in two of them the head passing through the pelvis in the brow position, in the other the brow presentation being spontaneously converted into a vertex Three were delivered by forceps, two by turning, and one by perforation The authors remark upon the paucity of information given in most text-books upon these extremely difficult cases They recommend that, if brow presentation is early recognized, turning should be performed If not seen until too late for turning, *i e*, when the liquor amnii has escaped and the uterus has contracted round the child, then they think forceps should be applied, by traction with which the malposition will sometimes be corrected Attempts at converting the brow presentation into a face or vertex, by pressure with the finger, as is advised in many books, they think almost invariably fail If by the forceps delivery is not quickly effected, then they advise perforation without further delay —*Medical Times*, May 16, 1885

THE

Journal of the American Medical Association

PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer s full name and address, although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM IN ADVANCE $5 00

SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, JULY 4, 1885

THE INTERNATIONAL MEDICAL CONGRESS OF 1887

The General Committee on the Organization of the International Medical Congress of 1887, assembled in the Palmer House, in this City, on the 24th of June, 1885, in accordance with previous notice Twenty-five of the thirty eight new members added to the Committee by the Association in New Orleans were present, while the original Committee appointed at the meeting in Washington was represonted by Drs J S Billings and I Minis Hayes Dr Austin Flint not being able to attend, sent his resignation as member of the Committee, which was accepted, and Dr J W S Gouley, of New York, was elected to fill the vacancy, making the whole number of members present twenty-eight As Dr Flint, the former President of the Committee, had ceased to be a member, a new election of officers for the permanent organization of the Committee became necessary A few ballotings resulted in the election of Dr R Beverly Cole, of San Francisco, as Chairman, Dr J S Lynch, of Baltimore, as Vice Chairman, and Dr John V Shoemaker, of Philadelphia as Secretary Drs J S Billings and A Y P Garnett, of Washington were put in nomination for the latter office, but both declined to serve The Committee having been thus organized simply as a *Committee of Arrangements* for the coming International Congress, its officers having no reference to, or connection with any offices in the Congress itself, proceeded to the important work for which it had convened A motion made by X C Scott, of Ohio, directing the Chairman of the Committee to appoint a Sub Committee of nine members to consider, and report on such revision and amendments as might be deemed necessary, of the previously adopted rules and appointments for the proposed Congress, was adopted, and the Chairman appointed the following members such Committee

X C Scott, of Ohio, J S Billings and J B Hamilton, of D C , J W S Gouley, of New York, W A Wathen, of Kentucky, John V Shoemaker of Penn , E F Upham, of Vermont, J W McLaughlin, of Texas, and D A Linthicum, of Arkansas

The General Committee adjourned until 7 30 P M , and subsequently to 9 A M , of the next day, for this Sub Committee to complete a report

On the assembling of the General Committee on the morning of the 25th, the Sub Committee presented a report, which after free discussion and some alterations was adopted We had hoped to receive from the Secretary an official copy in time for this week's issue of the JOURNAL, but in the absence of such copy it is sufficient for our present purpose to state that there was no desire manifested to make any revolutionary or radical changes in the general plan of organization previously adopted On the contrary, nearly all the general rules pertaining to the membership and the working of the Congress *both in* the general sessions and in the sections, were left unchanged Those relating to the organization of the General Committee itself were very properly so changed as to make them applicable to a Committee of Arrangements only, and not to a committe whose officers were to be nominated for election to the chief offices of the Congress The nineteen sections previously provided for were reduced to sixteen by adding obstetrics to the section of gynæcology, nervous and mental diseases to the section of medicine, and oral and dental surgery to the section of surgery The chairmen of only four of the sections were changed, namely Section 1 —Medical Education, Legislation and Registration, at the head of which was placed Dr Stanford E Chaille, of New Orleans, instead of Dr Henry P Bowditch, of Boston Section 9 —Opthalmology, to which was assigned Dr E Williams, of Cincinnati, in the place of Dr Henry D Noyes, of New York Section 13 —Laryngology, of which Dr J W Mackenzie, of Baltimore was made Chairman in place of Dr George M Lefferts, of New York, and Section 18 —Diseases of Children, of which Dr J Lewis Smith, of New York, was made Chairman instead of Dr A Jacobi of the same city The chairmen of the remaining twelve sections were left unchanged, viz for Anatomy, Dr Joseph Leidy, of Philadelphia, Physiology, Dr John C Dalton, of New York, Pathology, Dr Francis Delafield, of New York, Medicine, Dr J M Da Costa, of Philadelphia, Surgery, Dr D W Yandell, of Louisville, Obstetrics and Gynæcology, Dr Robt Battey, of Rome, Ga , Otology, Dr Clarence J Blake, of Boston, Dermatology and Syphilis, Dr Wm A Hardaway, of St Louis, Public and International Hygiene, Dr H A Johnson, of Chicago, Collective Investigation, Nomenclature and Vital Statistics, Dr N S Davis, of Chicago, Military and Naval Surgery and Medicine, Dr D L Huntington, of U S Army, Practical and Experimental Therapeutics, Dr H C Wood, of Philadelphia

By the foregoing changes, it will appear that instead of five Chairmen of Sections being centered in New York and four in Philadelphia, making within a fraction of one-half of the whole number in those two cities, the number in each of these cities is reduced to three, while the remaining ten are distributed as follows Two in Chicago, Ill , one in Cincinnati, Ohio, one in St Louis, Mo , one in Louisville, Kentucky, one in New Orleans, La, one in Rome, Ga , one in Baltimore, Md , one in Boston, Mass , and one in the Medical Corps of the U S Army When the complete record of the doings of the Committee is obtained showing the names of the Secretaries and members of the Councils of Sections, it will be found that a still more general selection has been made from all parts of the country, and yet without any lowering in the standard of the qualifications of those selected If we are correctly informed, Dr Austin Flint, Sr , was again selected for nomination as President in the Preliminary Organization of the Congress, and with the exception of one or two, the same list of Vice-Presidents as previously selected and published It will thus appear that the work of the Committee during its recent meeting, has been, as we predicted, highly conservative and for the most part judicious

So far from acting the part of "soreheads" and "outs" anxious to get themselves into official positions, as represented by certain Medical Journals, they have preserved a very large part of the work previously done, and left but one of their own number occupying any prominent official position in connection with the Congress, namely, Dr Robert Battey, of Georgia, who remains Chairman of the Section of Gynæcology, to which he had been appointed before the reconstruction of the Committee at New Orleans The Original Committee appointed at the meeting of the American Medical Association in Washington, having become satisfied that the Association at its more recent meeting in New Orleans, had a perfect right to reconstruct the Committee and order a revision of the work done, have re called their notice for a meeting of the Old Committee at Washington in September next, and formally accepted the New Committee Organization For the benefit of the editors of several of the medical journals in this country, who have captiously denounced the National Association for doing what they claimed it had no right to do, we append the following letters from the Hon Samuel J Randall, late speaker of the House of Representatives in Washington, which were presented by Dr Garnett in the recent meeting of the Committee in this City, and by vote of the Committee placed in our hands for publication It will be seen that Mr Randall fully sustains the views we gave in this Journal for May 30th and June 6th, on the same subject

MAY, 28TH, 1885

DR S W GROSS, Philadelphia

Dear Sir —Yours of the 22d inst was duly received The questions presented are somewhat novel, and are without Congressional precedent It is therefore necessary to consider them in accordance with the general principles of parliamentary law, and so far as possible, in accordance with analogous cases

The annual meeting of the American Medical Association may be said to correspond substantially with an entire Congress, or a session thereof Under the rules of the House a motion to reconsider can only be made on the "same or succeeding day," and consequently would not be in order at a subsequent session You do not state the rule of the Association on this point, but I assume there is no rule authorizing a motion to reconsider to be made at a subsequent session of the Association of a vote of the preceding session

The report of the committee under the resolutions of 1884 (though not required to submit a report), presented the entire question to the Association at its meeting in 1885, having substantially all the effect of a reconsideration of the resolutions of 1884, or in other words, as stated by Mr Cushing, "it again brings forward that question, to be discussed and decided in the same manner it was originally, for the consideration and determination of the assembly " This statement of Mr Cushing is based on decisions of Speakers Winthrop and Boyd, and is in full accordance with the established practice of the House in that respect The resolutions adopted on the 30th of April, 1885, marked " B " taken as a whole are somewhat contradictory and inconsistent The first resolution "enlarged" the original committee of seven by the addition of 38 members, and authorized the committee thus "enlarged" to review, alter and amend the action of the *present* committee as it may deem best

As the resolutions of 1884 fully authorized the original committee of seven to add to its membership and perfect its organization, it can not be claimed that in that respect it "had exceeded its powers " If the first resolution of April 30th, 1885, stood alone it is clear that the committee would consist of the original committee of seven as "enlarged under authority of the resolutions of 1884, and as further enlarged by the resolutions of 1885 But the second resolution of April 30th, 1885, expressly and in specific terms recognizes the committee as consisting of the original committee of seven, enlarged by the addition of 38 members under the resolutions of April 30, 1885, and the authority granted to select its officers and to "appoint the officers of the Congress" plainly shows that the resolutions of 1885 were intended as a complete substitute for those of 1884.

It is well settled—indeed a fundamental principle of parliamentary law—that every legislative or other body has the right to control its business by way of "instructions to committees "

It may instruct a committee to do a particular thing on Monday, amend such instructions on Tuesday, repeal them all on Wednesday, and if it pleases, abolish the committee on Thursday

In treating this subject Mr Cushing, after stating generally the powers with which a select committee is clothed for the performance of its duties, says "It is also competent for the house, *afterwards*, to enlarge the authority of the committee, either as to subject matter or its incidental power, by means of what are called instructions"

The resolutions of April 3, 1885, are therefore, in a parliamentary sense, "instructions" to the committee of seven appointed under the resolutions of 1884 In my opinion, following the rules of construction as laid down by the writers on the construction of statutory and constitutional law, which is to give effect to what was manifestly the intention of the body, and giving such construction, if possible, as will avoid contradiction and inconsistency, the resolutions of April 30, 1885, abrogated the resolutions of 1884, so far as related to the powers and duties of the Committee of Seven, and the members of the General Committee, added to the original committee, under the resolutions of 1884, were "legislated out of existence" by the resolutions of 1885 I am, yours respectfully,

S J Randall

Washington, D C

Dr A Y P Garnett, Washington, D C

Dear Sir —Yours of the 5th inst is received In reply I have to say that the questions submitted by you are substantially those presented in a letter from Dr S W Gross, of Philadelphia, of the 25th ult, and I enclose herewith a copy of my reply thereto as covering the entire ground of controversy

I might add, in addition, that the theory that a select committee created by a body with certain defined powers and duties gives any *vested rights*—so to speak—which places it above or beyond the power of the creating body to review or regulate, is one not only without precedent in parliamentary law, practice, or history, but is untenable on any ground of parliamentary principle A legislative or other body may, if it sees proper, temporarily delegate as a matter of convenience, certain of its powers and functions to a select or standing committee, but it does not thereby part with its inherent right to resume that power whenever it chooses, and that right is one which the committee can not question I am, very respectfully,

June 9, 1885 Sam J Randall

THE CONDITIONS OF CURABILITY OF PHTHISIS

Those who have read Professor Jaccoud's work on the "Curability and Treatment of Pulmonary Phthisis," are aware that he asserts that the disease is curable in all its stages, and that the dictum of incurability is but a historical souvenir It is not asserted that all cases of phthisis can be cured, however, there are certain conditions obtaining in every case, which must to greater or less extent, determine the prognosis and curability And, according to Jaccoud, the first condition of success, is the conviction on the part of the physician that the disease is curable, for it is this conviction that leads to the adoption of every possible therapeutic measure in a given case

What then, as regards the patient, are the conditions of curability? It goes without saying that "in the first place, whatever form of the complaint, whichever patient be considered, the chance of recovery is inversely as the duration and extent of the lesions," a proposition so self evident, that it need not be discussed Beyond this, there are certain indications furnished by the etiology of the disease Jaccoud has distinguished phthisis, as regards its origin, as the hereditary, the innate, and the acquired forms, the innate being that form seen in the "descendants of those who, though, not tubercular, are weakened by scrofula, cachectic diabetes, alcoholism, or simply by bad hygienic conditions," or it may be due to consanguineous marriages From the standpoint of curability, this form is more favorable than the hereditary form, which, from the fact that it is hereditary, offers the least prospect of cure for two reasons "In the first place the diathesis, that is to say, the unfortunate disposition of the organism to form tubercle, has in these cases its greatest powers," and the second place, "chronic phthisis, when hereditary, almost invariably takes the ordinary anatomical, that is the miliary form of the disease" Jaccoud distinguishes two groups of acquired phthisis First, "those cases in which the pulmonary tuberculosis, being spontaneous and independent of other diseases, could only be due to general debility, to that insufficient or improper nutrition which is the basis of all forms of phthisis, such is 'the primary form of acquired' phthisis Secondly, those cases in which the pulmonary disease is connected with a constitutional affection either past or present, and to the existence of which it may be rationally imputed, this is 'the secondary form of acquired phthisis"

As the primarily acquired or idiopathic phthisis is only produced by constitutional malnutrition, it is, as regards curability, the most favorable of all varieties of phthisis, it being supposed that the same extent of lung is involved, and it is much more amenable to treatment when it is acquired after the age of thirty five The secondary form of acquired phthisis, while much less formidable than the hereditary or innate forms, is less favorable for treatment than the primary form of the disease, phthisis, being the result, as already said, of present or past constitutional disease, and all the forms of the secondary variety, that, which is known to the authors as scrofulous phthisis is most frequent and most resistant to treatment Furthermore, it is most amenable to treatment when the lesions are confined to the lungs Of diabetic phthisis, it need only be said that it occurs late in the course of diabetes mellitus, thus adding a most serious complication to an apparently incurable disease The arthritic and herpetic forms of phthisis, not being generally recognized as true forms of phthisis, need not be discussed, and acute miliary tuberculosis, which does not produce the clinical symptoms of phthisis, may be for the present disregarded

There remain, therefore, two varieties, the so called pneumonic form, and chronic miliary tuberculosis or the ordinary form of consumption The pneumonic form of phthisis may be said to be especially curable, "it is most often an acquired or primary disease, or perhaps is connected with scrofula, receiving then the virtual advantage specially conferred by this etiological cause, the lesions are either confined to the lungs," or affect other organs at a late period of the disease Of this form of the disease, the primary period may be said to be attended by the most constant danger, as the first outbreak may prove very speedily fatal, constituting the so called galloping consumption, which is not less serious than the acute form of miliary tuberculosis The prognosis of pneumonic phthisis, therefore, depends very much upon the stage of the disease, being very serious at first, but in the period following the acute outbreak the least serious of all varieties Chronic miliary tuberculosis may be said to be the expression of a very high form of the phthisical diathesis, "the hereditary and innate diseases are usually expressed in it, and this would be the cause of its greater resistance to the healing process the lesions are almost invariably bilateral, either from the first, or before the disease has been long in existence the lesions are more disposed to increase by successive miliary as usually occurs in the disease the lesions are but rarely confined the lungs, sooner or later similar changes occur in the larynx, the intestine, and at times also in the brain," which will readily explain the unfavorable prognosis of this form But should, as may be the case, such unfavorable circumstances not exist, should this form be connected with the acquired form of the disease, and the lesions of this form be confined to to the lungs, and of small size, the prognosis may be regarded as somewhat better than that of the pneumonic form, since the primary lesions will develop more gradually "The chance of recovery, in fact, is then entirely dependent upon the constitution of the patient, which overrules at all times the question of prognosis"

The conditions of curability as regards the symptomatic phenomena remain to be considered Of these it must be said, that severe forms of laryngitis and gastro intestinal disturbances affect the prognosis to an extremely serious extent, diarrhœa due to intestinal ulceration, and ulcerative laryngitis almost necessarily indicate a prognosis of absolute incurability, as they are not only serious in themselves, but prevent the employment of most useful therapeutic agents Hæmoptysis, unless very profuse or attended by persistent pyrexia, has not the grave signification usually attached to it In some cases, indeed, it is to be regarded as a healthful process, as, for example, when in the initial period there is danger of congestion, causing an increase in the size of the lesions, "the hæmoptysis may be, as it were, critical in character, and dissipate, for a time at least, threatening inflammation" Under other circumstances, much will depend upon its frequency and effects on pre existing lesions, and "the relation which the number and abundance of the hæmorrhages bear to the condition of the organism in which they occur,"—individual peculiarities being factors of great moment

When the hæmoptysis is attended by pyrexia which persists when the former has ceased, the chances of ultimate recovery are seriously compromised Fever, of whatever type, must always be regarded as a serious matter in a phthisical case, since no improvement can take place while it lasts, and when it is complicated by hæmoptysis the condition must be regarded as unfavorable Another very important question as regards recovery is the degree and persistence of emaciation, especially when it occurs early in the disease, when it does occur early, persists and possibly increases, while the disease, as shown by the local lesions, remains stationary the possibility of cure must be excluded There is still another symptom, depending upon the character of the individual, "which should be taken into serious consideration namely the nervo vascular excitability, to which the name erethism has been applied This condition may produce mere cardiac excitability and frequent attacks of palpitation in other cases there is general nervous excitability without any pronounced visceral disturbance the prospect of recovery is diminished by its presence Symptoms such as pyrexia and hæmoptysis may be produced or continued by its existence, by producing waste it adds to the constitutional loss which characterizes the disease, and it may prevent the adoption of certain therapeutic means as residence at a high altitude, or the use of hydrocarbons as internal remedies" Besides being a serious complication, it is extremely difficult to remove, and when it is present, attempts at its removal or modification should be the first care of the physician

Such, then, are the causes, lesions and symptoms which favorably or unfavorably affect the question of curability There are, however, three other vital principles to be considered in every case the general condition of the patient, embracing the degree of malnutrition, the possibility of nutrition and what is generally known as the *constitution,* secondly, the existence of or freedom from intercurrent attacks of congestion or inflammation, and thirdly, the possibility of proper treatment, which involves the consideration of the means for treatment at the patient's disposal "Nothing is so complex, so difficult to conciliate with the ordinary habits of life, so costly in expense, as the treatment of pulmonary phthisis The disease may remain incurable, not on account of its own serious nature, but because it cannot be completely or constantly resisted and the disease is therefore quite different as it affects the rich or poor, so far as the result of treatment is concerned"

SOCIETY PROCEEDINGS.

SUFFOLK DISTRICT MEDICAL SOCIETY.

SECTION FOR CLINICAL MEDICINE, PATHOLOGY, AND HYGIENE.

Stated Meeting March 11, 1885.

THE PRESIDENT, DR. R. T. EDES,
IN THE CHAIR.

DR. V. Y. BOWDITCH reported a case of

TRAUMATIC LINEAR ATROPHY.

During the past year my attention was called to an affection of the skin, the symptoms of which were so marked and peculiar, that I have thought it worth while to present the case to you this evening.

Mrs. A., a widow, aged sixty, with children, a person of decidedly sensitive and nervous temperament, has had for many years slight aortic disease, which in the last two years has shown somewhat more marked symptoms, together with a decided increase in bodily weight. Early in the past year, she began to have an annoying paroxysmal cough, which, after repeated examinations of throat and lungs, with negative results, I came to the conclusion, was of nervous origin, and, owing to her generally debilitated condition I prescribed change of scene and air, and sent her to a relative's house in the country. On the twenty-sixth of February, a year ago, I was called to see her, and found the cough was still quite severe, at times causing vomiting and much dyspnœa. The patient complained also, of an extreme sensitiveness confined to the lower abdomen. Upon examination, nothing abnormal was to be seen, but upon palpation, the walls of the abdomen, which was large and pendulous, were very sensitive, which symptom I regarded as rather hysterical than otherwise. I prescribed, however, a liniment containing aconite root and chloroform, with soap and opium and did not see her until the following week, when she sent me word that several small puffy excrescences had appeared upon the abdomen, accompanied by a feeling of great heat and distension. Upon examination, the lower quarter of the abdomen down to the pubes and Poupart's ligament was very hyperæmic, and, ramifying in every direction upward, were curious, whitish, œdematous looking elevations from one eighth to one-fourth of an inch in width, most marked near the pubes and median line, and gradually disappearing toward the line where the hyperæmia ceased, the whole having in arrangement the appearance of the branches of a tree, and giving to the finger, the sensation of very soft, crumpled rice paper. I ordered the liniment to be discontinued, and a lotion containing the acetate of lead was substituted. The following week, the hyperæmia increased, and the elevations had increased in size, in some places having coalesced so much as to make lumps as large as half of a pullet's egg. There was no marked tenderness, but a feeling of heat and puckering all the time, with a sense of distention of the parts, which caused much discomfort to the patient when sitting upright in a chair. The general symptoms were not materially changed.

Not being satisfied with the course of the trouble I called in consultation Dr. J. C. White, who considered it a very marked and rare case of either linear atrophy or keloid, and recommended leaving off all applications and using an abdominal supporter to relieve the tension of the skin. Owing to delay in obtaining the supporter it could not be applied until some two weeks later, and as the hyperæmia and the elevations seemed to be slowly disappearing, I decided not to use the supporter, and see if the abdomen would not regain its natural appearance without aid of any sort. Two weeks later, the hyperæmia and swelling had entirely disappeared, leaving only numerous cicatrices similar to those noticed on the thighs and abdomen of a woman who has born children, or whose abdomen is large and pendulous.

In the *Journal of Cutaneous Medicine* (vol. i. p. 140) Sir Erasmus Wilson speaks of "Striæ et Maculæ Atrophicæ Cutis, or false cicatrices of the skin." By these names he designates the whitish, slightly curved, puckered streaks so well known to us as seen on the abdominal walls and thighs of women who have born children. He considers that these marks are due to rupture of the corium, with loss of the subcutaneous fat, of the papillary layer of the derma, of its vessels and nerves, leaving a smooth and unmoulded epidermis. From this loss of substance arises the name of striæ atrophicæ, or linear atrophy. He mentions, also, the existence of similar false cicatrices in the skin which have arisen under different conditions from those of pregnancy, and divides them, according to the nature of their origin, into three classes of linear atrophy, namely: (1) neurotic, (2) traumatic, and (3) idiopathic.

Under the first head come the lines sometimes noticed over the course of cutaneous nerves which have been paralyzed. For instance, in cases of paralysis of the supra orbital, the course of the nerve can be traced by the whitish line which marks the position of the nerve, and which, some time later, loses its sensibility and becomes atrophied, resembling the scar of a sword cut, the line in this case being more firm and condensed than in the other forms.

Under the second head, namely, the traumatic form, Wilson considers all those cases which arise from overdistension of the skin from causes acting from within, and mentions the conditions of pregnancy, of dropsy, and obesity. He likens this condition to that of a rubber bag which is overdistended with gas, it first yields, and then gives way at the weaker places. He concludes: "In the corium, this violence is accompanied with hyperæmia and followed by exhausted nutritive power and atrophy."

The third, or idiopathic, form he considers appears without apparent cause, although the nutrition of the skin is evidently affected by an unhealthy general condition. Unlike the traumatic form, moreover, it appears in parts of the body not subjected to distention of any sort.

This case I class under the second head, namely, linear atrophy of traumatic origin. We have the history of long-continued paroxysmal cough, causing frequent and violent distention of the abdominal walls, which, owing to the debilitated condition of the patient, yield in the manner mentioned above, and after two or three weeks of acute hyperæmia and swelling, a gradual diminution of the symptoms occurs, until no vestige of the trouble is left except the small cicatrices of the ruptured corium.

In this case the symptoms were all unusually well marked, and to one whose attention had never been called before to the affection the appearance was decidedly puzzling, not to say alarming.

Diagnosis.—The only other disease with which linear atrophy could be confounded is the so called "keloid," and several authorities speak of the marked similarity between the two affections, and the frequent difficulty of distinguishing one from the other. Cases of the latter are divided by most authors into two classes, namely, the true and the false keloid, according to the idiopathic or traumatic origin of the affection.

True keloid is the name applied to an affection characterized by a collection of small red tubercles, usually found upon the sternum, sides of the body and back, which increase in size slowly until they coalesce, forming oval or cylindrical-shaped tumors, dry and puckered in appearance, with spur like processes, somewhat tender upon pressure, and firmly rooted in the skin. This process of growth may go on for months or years with more or less discomfort to the patient from a sense of burning or itching, and the affection rarely disappears, although exceptional cases are reported in which entire disappearance of the tumors was noticed. False keloid is a term used to designate the exaggerated cicatricial tissue noticed in places where a wound has previously existed, and differs from the true form in that it is usually smaller, longer, bifurcating and follows the course of the original lesion. The difficulty oftentimes of drawing the line between true and false keloid is spoken by Kaposi in his article on "Keloid," Lehrbuch der Kinderkrankheiten, vol. ii.

The course of the disease, its sudden appearance and comparatively rapid disappearance, the absence of tenderness in the tumors themselves, are facts which enable us to decide against the presence of keloid in the present case. The slight elevations noticed, resembled the tumors of that disease, but their rapid shrinking, leaving nothing but the ordinary atrophic lines, is another proof of the non existence of keloid.

Treatment is of little avail in these cases, and the disease will, as a general rule, run its course uninfluenced by medication. Attention to the general health and an attempt to remove the exciting causes are chiefly indicated, as in this case, for instance, where an attempt was made to relieve pressure on walls of the abdomen by means of a supporter, medicines to relieve the paroxysmal cough were given. Sedative applications are of little or no use in checking the course of the affection.

In conclusion, the question might naturally arise—Could the affection described have arisen from the application of the liniment containing aconite-root and chloroform, with soap and opium? Such a supposition can hardly be sustained: *first*, from the fact that no case has ever been recorded of similar trouble arising from the use of this very common remedy; *second*, because attention had been called to the extreme sensitiveness of the lower part of the abdomen before any external applications were made; and *third*, because similar affections, in which the general symptoms were like those mentioned in this case, have been recorded by various authorities.

DR. WHITE, in discussing the paper, stated that the process is not a true atrophy, but an over-stretching of the skin by which its elastic fibres lose their contractility, and the bundles of fibrous tissue forming the skeleton of the corium and normally interwoven in the form of a network, are pulled out straight and left in a permanently parallel direction. The papillæ and the glandular structures are pulled farther apart, and the former flattened down. The stretching of the corium might result in real fracture of its tissues. The process is at times accompanied by hyperæmia, so that the streaks looked redder than the surrounding skin seen through the stretched and thinned epidermal layers. The cause is always a distension of the integument by some power acting beneath it, as pregnancy, a rapid accumulation of subcutaneaus fat, ascites, and the like, and occurs principally over the abdomen, breasts, and thighs. It affects men as well as women, and may possibly be caused by rapid increase in size in young people. The present case presented some very uncommon features. The hyperæmia and tenderness or the parts were as pronouncod as in an active dermatitis. The elevation and firmness of the radiating ridges resembled keloid or hypertrophied scar formation, and must have been due to the presence of the products of inflammatory infiltration. The exciting cause was apparently the rapid accumulation of subcutaneous fat and the rending action of the spasmodic cough.

DR. EDIS asked the distinction between the scars of linear atrophy and those of pregnancy, and how the distinction can be recognized.

DR. WHITE stated that at times hyperæmia may accompany œdema.

DR. H. I. BOWDITCH asked if the liniment applied could have caused or increased the hyperæmia?, to which the reader replied that in his opinion this could have had nothing to do with it.

DR. LYMAN observed that we see similar cicatrices on the thighs of virgins and others who have never borne children.

DR. WHITE admitted that this may occur, but it is generally in persons who have a large amount of fat, and results from simple distension. It is at times seen in the breasts of fleshy women. It is not a true atrophy, but results from a mechanical pulling out of the tissues from simple distension.

DR. F. C. SHATTUCK read a paper on

A CASE OF MULTIPLE SARCOMA OF THE SKIN — TREATMENT BY SUBCUTANEOUS INJECTIONS OF FOWLER'S SOLUTION, WITH RECOVERY.

July 26, 1883, K. B., 31 years old, was admitted into the Massachusetts General Hospital. Her health had usually been good, and she had worked at dressmaking up to the time of admission. Seven months before that date she began to suffer from pain along the lower jaw, and soon after noticed swelling behind the angles of that bone. About two months later, nodules appeared in the skin over her right shoulder, then on her right arm, next on the left, next on the abdominal wall. She thinks that the appearance of the nodules was preceded by local tenderness and followed by discoloration. About three weeks ago she noticed that her face was fuller than normal, and she began to suffer from pain in the cardiac region. She was somewhat short of breath on exertion, and reported that she had lost decidedly in strength, though not in flesh. The bodily functions were in fairly good order. Pulse 120, regular, rather weak.

On examination, it was noted that the patient was pale, with some œdema of the eyelids and face, preponderating on the right side. Scattered throughout the skin of the upper extremities and the body as far as the umbilicus were hundreds of nodules, mostly about the size of a pea. Over the inner aspect of the arms the nodules were discrete, not raised above the surface, slightly tender on pressure; the skin could be wrinkled over them, and was not discolored. On the other hand, over the shoulders, outer aspects of the arms, breasts, upper abdomen, and back—though in the latter situation to a less degree—the nodules were so thickly sown as to form large masses or plates, very hard and but very slightly tender; the skin covering these could not be pinched up or wrinkled, and was markedly erythematous, with slight scaly desquamation of the epidermis. In the legs a very few nodules could be felt, and there was no erythema. The glands at the angle of the jaw were enlarged, but those of the axilla and groin were apparently normal. Thorough examination failed to reveal any material modification of the great viscera. I made the diagnosis of multiple sarcoma of the skin, and soon after Drs. White, Wigglesworth, and Tilden were kind enough to accede to my request to see the patient, concurring in the diagnosis.

General tonic treatment was prescribed at first, but Kobner's brilliant success in a similar case with the subcutaneous use of Fowler's solution induced me to adopt his plan toward the end of August. An injection of four minims, diluted with an equal quantity of water, was given once daily, deep in the thigh. September 15 Dr. Tarbell resumed charge of the wards, and soon after increased the injection to six minims. The general health of the patient improved, a few fresh nodules appeared, but the old ones disappeared in much larger numbers, and November 3 she was discharged from the hospital, in order that she might work a portion of her time. She came daily to the hospital, however, for her injection, until she was furnished with a syringe and taught its use, and treatment was persisted in steadily till the middle of March, when I opened an abscess in the thigh, the only one which formed during the whole time. A few nodules still remained, but the masses which filled the skin over the breasts, abdomen, and outer side of the upper arm had entirely disappeared, and during the past year she has been under observation from time to time without any treatment whatever, and has worked steadily at her trade. I have seen her within a few days, and she remains perfectly well to all appearance.

Early in 1884, I showed her at a meeting of the Medical Improvement Society, but have purposely allowed a year to elapse before reporting the case, in order that there might be no doubt as to the result.

Cases of multiple sarcoma of the skin are rare, and the authorities on diseases of the skin have little to say on the subject. All agree that the prognosis is absolutely unfavorable, and the course generally a rapid one. Kobner's is the only case recorded up to date, so far as I am aware, in which recovery took place. I now regret that one of the tumors was not excised and examined microscopically, as was done by Kobner. The patient was extremely averse to the operation, and preferred to wait, promising that she would make no objection if she got worse. To this delay I consented, having very little faith that treatment would prove of any avail. Still, even without the evidence without the evidence of the microscope, I think there can be no doubt as to the diagnosis. The experts were unanimous and I had previously seen two other cases very similar, except that they ended fatally. Was the cure really attributable to arsenic? If so, would the drug have acted as well administered in the usual way by the stomach? These are questions which can only be answered by extended experience. It is interesting to state that ten days after the arsenic was stopped the urine was examined for its presence by Professor Wood, with a negative result.

Dr. White stated that two years had passed since the last report on Professor Koebner's case, and so far as he knew, the patient remained well. He saw no reason why the internal administration of arsenic should not work as effectually as the subcutaneous injection. He had at present a similar case of multiple sarcoma under treatment by Fowler's solution given by the mouth, but it was too early as yet to report results. Some forms of sarcomatous growths in the cutaneous tissues showed a marked tendency to spontaneous involution, that is, if we regard the so-called mycosis fungoides, or granuloma fungoides, or lymphadenoma, etc., as it is variously titled, of this nature. In this affection, of which he had had recently two examples under observation, tumors the size of a hen's egg or larger will rapidly disappear notwithstanding its malignant character. The pathology of this form of disease was not yet fully established, and, although several excellent microscopists had determined the presence of a sarcomatous structure in it, clinically it was distinct from the form presented in Dr. Shattuck's case. Pigmented sarcoma did not appear to undergo involution with or without treatment. In reply to Dr. Blodgett's comments he stated that he saw no reason why a sarcoma should not confine itself to the cutaneous tissues in some cases, just as carcinoma may be restricted for an indefinite number of years to the same structures without manifesting a tendency to invasion of other parts of the system or to general malignancy.

Dr. Tilden showed the photographs of a case interesting in connection with Dr. Shattuck's paper. The case had been under Dr. Tilden's observation, having been sent to him by Dr Vincent Bowditch and had been referred to by Dr White as a variety of cutaneous sarcoma The disease was more common than that which Dr Shattuck had reported, there being recorded in medical literature from thirty five to forty cases In the majority of cases it occurred in the male sex, and most commonly in advanced middle life from forty to sixty years The malady had no connection with syphilis, and most of its victims had always been in good health It began with fugitive erythematous, and inflammatory lesions of the skin, attended with great itching and desquamation After this condition of the skin had lasted some time, a year or more, there appeared the lesions which were characteristic of the disease, namely, cutaneous tumors appearing either on normal skin or in regions which were already affected by the inflammatory lesions already mentioned These tumors increased in size until often the epidermis covering them was cast off, exposing to view the pathological tissue of which they were composed, from which exuded a thin fluid which dried and formed crusts The most remarkable feature of these tumors, and one which had been mentioned by Dr White, was that they often spontaneously and completely disappeared, apparently by reabsorption, at the same time that other lesions of a like nature were showing themselves in other parts of the body The disease is of chronic course and fatal termination, and its clinical features are well understood, Bazin's excellent description leaving nothing to be desired in this connection Its pathogenesis, however, has yet to be determined It is regarded by Kaposi and also in this country as multiple sarcoma of the skin, while several German authorities look upon it as a granulative tumor of the skin, giving to the disease the name of granuloma fungoides The French dermatologists regard the affection as belonging to the same category as Hodgkin's disease, or pseudo leukæmia, where, without marked or permanent increase in number of the white corpuscles of the blood, there occurs general hyperplastic enlargement of the lymphatic glands and spleen, together with the formation of so called cytogenic or lymphatic tissues in various parts of the body Microscopic examination showed the tumors to be made up of a dense infiltration of the corium with round cells resembling lymph cells which, according to Ranvier, were contained in a fine, fibrillary network, presenting stellate connective tissue cells at the points of intersection of the fibrillæ, the presence of this network showing the new formation to be one of cytogenic tissue, and not sarcomatous in nature Dr Tilden had excised two of the tumors from the question, but had not yet had time to give them a thorough examination, and was of the opinion that if the presence of this lymphatic reticulum could be satisfactorily made out, that it would go far toward showing the cytogenic nature of these tumors In determining the pathogenesis of any malady also, its clinical course should be taken into consideration as well as the minute anatomy of its pathological products, and the malady in question had many of the clinical features of pseudo leukæmia In none of these cases had there been observed sufficient increase in number of the white corpuscles of the blood to constitute typical leucocythemia, and at the autopsies, as a rule, there had been found enlargement of the lymphatic glands, and often also of the spleen The last case which had been reported was by Auspitz, in Vienna, last December, and in this case the tumors, upon investigation, have been found to contain large quantities of micrococci Considering, however, the extremely favorable conditions in the shape of warmth and moisture furnished by these fungous excrescences deprived of epidermis, any microorganism found in them can hardly be regarded as anything but an accidental phenomena

Dr **Lyman** stated that he had a case under observation in which the features were similar to those described by Dr Shattuck The patient was seen some twelve or thirteen years ago The skin was covered with small tumors The patient died, and on autopsy similar growths were found in all the internal organs Dr Lyman asked if arsenic is usually given in doses so small as those reported

Dr **White** replied that the amount given is never more than three minims at each injection

Dr **Shattuck** stated that the amount of the injection in the present case was increased to nine minims There is an objection to large or bulky injections in that they sometimes produce severe pain at the seat of the injection

Dr **Blodgett** considered it a matter of regret that a portion of one of the suspected growths was not removed and subjected to microscopical examination The clinical history of the sarcomata is generally that of a most malignant form of disease, which tends to advance locally, and is often followed by degenerative changes in the growth, by which loss of substance and an ulcerating substance is produced One of the most uncontrollable and persistent features of sarcomatous disease is also found in the tendency which these growths possess of forming metastatic deposits in remote portions of the body, and especially in the structure of the visceral organs Each local deposit forming a new and independent local development of the original disease

The specific treatment of sarcoma would seem to offer, *a priori*, less promise of success than would that of sarcinoma, as the latter is confined originally to epithelial structures and is essentially an affection of an external surface of the body, while sarcoma is developed in the connective tissue, the *universal* tissue of the interior of the animal body

Dr **Blodgett** suggested the possibility of the existence of a disease in the connective tissue which might resemble sarcoma in appearance as the innocent verruca or common wart resembles a form of malignant carcinoma called papilloma so closely that by the microscopical examination alone one might not be able to say which was malignant

For this additional reason it would be of great advantage to secure a careful microscopical examination of the tissues in cases of this kind

Dr **White** added that there is at present no known method of treatment which offers any promise of relief or cure in sarcoma In ordinary cases the disease progresses in a way which shows the powerlessness of all medicinal measures for its restraint or cure. He suggested that in the absence of microscopical examination of the tissues it is possible that some other condition than sarcoma may exist.

The Secretary called the attention of the Society to a card which had been sent him, announcing the presence in the city of a so called "hermaphrodite," and stated that in company with three prominent members of the profession from Park Square he had visited the individual for the purpose of offering at the meeting of the Section a favorable opportunity for introduction to the profession as the most useful method of attracting the notice of persons interested in such a malformation.

The efforts of the Committee were not crowned with success owing to the high pecuniary consideration which was demanded before even an ocular view of the deformed region could be obtained.

The contradictory statements made by the individual led the Committee to doubt the existence of hermaphroditism, and they consider it probably an abnormal or unfinished condition of male development.

Dr. James J. Putnam described briefly a case of typical hemianæsthesia, involving all the special senses, which had developed in a strong, healthy man as the result of a concussion two years before.

Conclusive evidence against malingering was furnished by the fact that the lines bounding the anæsthetic region of the skin and the diminished field of vision were preserved throughout a protracted examination. No outward sign of disease existed and the medico-legal value of the symptoms described was obviously great.

Dr. Edes remarked that he had a male patient at the hospital last year who, after a fall with loss of consciousness and tempory hemiplegia had hemianæsthesia of the most distinct character.

The field of vision was very much diminished on the affected side, and also the color fields almost as exactly as if the man had studied and remembered Charcot's description of similar cases. Smell, taste, and hearing were diminished on the same side.

INFANTILE DIABETES.

Dr. White stated that he had recently seen a female child, aged two years and three months, the inner surface of whose vulva as well as the perineum as far back as the anus, was intensely inflamed, being uniformly excoriated and in parts in a condition of superficial ulceration. Being reminded of similar forms of dermatitis of these parts in adult life, he made inquiry which showed that micturition was too frequent and that the diapers stiffened on drying. Analysis of the urine subsequently made revealed a large percentage of sugar, specific gravity 1042.

The inflamed parts were rapidly improving under black wash and a protecting ointment.

KENTUCKY STATE MEDICAL SOCIETY.

Thirtieth Annual Meeting, held in Hustenville, June 24, 25 and 26, 1885.

WEDNESDAY, JUNE 24, FIRST DAY.

The Society was called to order by the President Dr. Pinckney Thompson, of Henderson. Rev. J. R. Roger, of Hustenville, O., opened the session with prayer.

Col. Will S. Hayes, of the *Louisville Courier-Journal*, made a happy Address of Welcome.

Dr. Edward Alcorn, of Hustenville, chairman of the Committee of Arrangements, also spoke some words of welcome.

Dr. Will Bailey, of Louisville, from the Committee on the

PRACTICE OF MEDICINE

spoke of the common practice on the part of the pharmacists of loading down the physicians office table with new pharmaceutical preparations. He thought this had become a common nuisance and should be abated. He had not the courage to uncork one tithe of what he received. He thought the physician should go before and ask the pharmacist to make new preparations to meet his wants, not that the pharmacist should form the remedies, and then urge them and their merits upon the physician. He recommended that new remedies be thoroughly tried by competent men in public institutions, then if found worthy, given to the general profession. He then began the discussion of the subject of cholera. All honor should be given to the brave men who are risking life and sacrificing comfort in the etiology of the disease. He thought the germ theory of disease to be the greatest question of the age. He thinks that from the history of cholera it must be much like dysentery, malarial fever, etc., due to climatic influences. In cholera improved sanitation should be the watchword.

Dr. Pinckney Thompson, of Henderson, then delivered the

PRESIDENT'S ADDRESS.

He congratulated the Society on their ability to meet together, and referred to those who had joined the great majority. He spoke of the profit to be gathered from their meetings, of all taking part in the work. A wise old Roman long since said "Men are at no time so like the gods as when they try to give health to other men." He who assumes the office of a physician takes up a solemn trust, a very grave responsibility; neglect or abuse must be most culpable. The physician he said was responsible for many of the crimes of the world, for to whom are the feeble constitutions and defective intellects more chargeable. To have a good brain we must have good blood. Whence can good blood, physiologically, come to him who has been born and bred in disregard to the laws of health? Wanting good blood the brain power fails, then the whole life, mental moral and physical fails, and degradation results. He then considered the physical, mental and nervous degeneration of the American women, and "Over-pressure at School." He compared the children of the cities with those of the country. Who of us have not seen, again and again, their country boys come to the town or city, and with their robust constitutions and heads full of brains, ride over their city or town competitors in whatever occupation they may follow? The women of this generation, he thought, had not improved intellectually, physically, or otherwise over the preceding one He should like to say that every girl is an angel and every woman a goddess, but if so they are very sick angels, and very feeble goddesses He laid special stress in the difference of school life in the city and country, and its effect on the health of the children The city schools he termed elevated slaughter houses He spoke of the fearful increase of "Gynecological Sanatana" He closed with an appeal to the profession to correct these evils as far as possible, and to educate the people, especially mothers, in the proper care of their daughters

THURSDAY, JUNE 25, SECOND DAY

The Board of Censors of the Boyle County Medical Society reported the names of two gentlemen as not being members of the County Society As no charges were made against the gentlemen other than this the matter was referred back to the local Society

The Secretary, S M LETCHER, M D, reported that the sum of $100 had been contributed to the Sim's Memorial Fund Received from dues $200, leaving $75 05 in the treasury

A communication was received from the American Medical Association recommending that the State Society use its efforts to secure the passage of a bill authorizing the forming of a

STATE BOARD OF EXAMINERS AND LICENSERS

Referred to a committee to report

The subject of the

IMMIGRATION OF INSANE AND DEFECTIVE PAUPERS

into the United States from European and Asiatic countries was referred to a committee to report

DR J M MATTHEWS, of Louisville, read the report on the

PRACTICE OF MEDICINE

He commenced with a feeling reference to the death of Dr Gross He then considered the operation of abdominal section and hydrochlorate of cocaine He thought it an important question as to whether cocaine prevents repair In some of his cases he thought it had Its use in rectal diseases had not been followed by success in his hands He had also used rhigolene as a local anæsthetic with success He thought the great question to be, Can a physician after attending autopsies or infectious diseases disinfect himself and go to the operating room or lying-in chamber? Abdominal section for gun-shot wounds, pylorectomy and surgical treatment for empyema were carefully discussed

DR WM CHEATHAM, of Louisville, thought the essayist was mistaken in his reference to cocaine preventing repair Secondary hæmorrhage is more likely to occur He thought it had a styptic action

DR M F COOMES, of Louisville, thought that if he had a gun-shot injury of the abdomen and the surgeon exhibited any hesitancy about operating he would say "go ahead" If cleanliness is observed in the abdomen repair will occur as quickly here as elsewhere He reported a case of toxic symptoms following insufflation of two grains of Iodoform

DR E WILLIAMS, of Cincinnati, discussed the subject of cocaine He had arrived at the conclusion that the preparation of Merck was much superior to that of any American manufacturer He had removed a small cystic tumor above the eye, using hypodermic injections of cocaine Pain was not entirely abolished

DR AP MORGAN VANCE, of Louisville, said that his experience was different from that of Dr Williams He had found it to work admirably in all cases even of tumors He reported a number of cases,

DR W O ROBERTS, of Louisville, had used cocaine His experience was not uniform, sometimes it does well but it sometimes fails In operations on the rectum it is of no use at all He had used it in stricture of the urethra, and in prostatic and vesicle trouble, with good results

DR ARCHIBALD DIXON, of Henderson, reported on

LAPAROTOMY

He reported a case of abdominal tumor believed to be fibroid producing ascites In four months after it came under his observation the tumor increased considerably It continued to grow despite ergotine injections until it occupied the entire abdominal cavity The operation for removal was successful

DR T B SCOTT, of Louisville, asked, How much may a physician expose himself to post-mortem examinations and infective cases and then attend obstetric cases?

DR T A REAMY, of Cincinnati, at the request of the President, replied to this question He referred in favorable terms to a paper read by Dr Geo F French, of Minneapolis (see p 5 of this issue of the JOURNAL), before the obstetrical section of the American Medical Association, "How Soon After Exposure to Sepsis may a Physician Resume Practice!" He would have it known that the germ of the dissecting room had been shown to be a different thing from that of disease He stated how he had attended a case of puerperal fever in the morning, took a bath in warm water, then one in carbolized water as strong as he could bear it, then dressed himself He said if an obstetrician was called on to attend a case, it was his duty, in attempting to disinfect himself, to change all his clothing clear down to his socks, take a shampoo, then bathe well in warm water, and then take a disinfecting bath No man had a right to attend a case after attending an infected case unless he did that While he might go in consultation, he was not fit to take charge of the case

The Committee on nominations referred the following names

OFFICERS FOR THE ENSUING YEAR

President, J P Thomas, M D, of Pembroke, Sr Vice-President, O D Sharley, M D, of Winchester, Jr Vice President, R C McChum, M D, of Lebanon, Permanent Secretary, J Steel Bailey, M D, of Stamford, Treasurer, Edward Alcorn, M D, of Stamford, Librarian, J L Taylor, M D, of Warren Co, Chairman of Committee of Arrangements, S W Willis, M D, of Winchester Winchester was chosen as the next place of meeting, time, the last Wednesday in June, 1886

FOREIGN CORRESPONDENCE

LETTER FROM LONDON

(FROM OUR OWN CORRESPONDENT)

Diet of Nurses in Hospitals and Infirmaries—A Hæmostatic Powder—Professor Budin—Causes and Prevention of Cholera—The British Gynæcological Society

At the sixth general meeting this season of the Hospital's Association, held at the rooms of the Social Science Association, a paper was read by Miss Louisa Twining, entitled "Thoughts on the Diet of Nurses in Hospitals and Infirmaries" She commenced, by stating her conviction, that the health of nurses in hospitals was not sufficiently considered in the arrangement of the dietary Motives of economy might probably be pleaded, but no motive should prevail which seriously affected either the present or future health and strength of young women The result could only be a speedy break down, or a lingering debility It would be granted by all, that the work of a nurse was not one conducive to appetite Their avocation would indispose them to a hearty relish of their food The apparently inevitable arrangement that the nurses dinner followed immediately upon that of the patient, was not the best preparation for their own meal Far greater attention should be paid to providing suitable food for nurses, and that would be in the end true economy Two things were named as capable of improvement, viz, making the dining rooms and tables a little more attractive, and also the extension of time allowed for meals, nurses so often hurrying over them, to the serious injury of their digestion, and the entire absence of any enjoyment of their food More changes in the way of soup, lentils, fish, etc, were needed The The substitution of more coffee or cocoa for frequent tea would be an improvement, and without adopting the vegetarian system, many useful hints might be obtained from it In concluding, Miss Twining alluded to the question of stimulants, which was now being considered from all points of view She objected to the allowance of money instead of beer, as the temptation was to get stimulants outside of a stronger character She advocated the necessity of an officer being present at all meals to see them properly served, and in sufficient quantity All the opinions she had obtained pointed to the same direction, viz that greater variety was needed even more than quantity, and that the quantity of meat should be reduced in favor of more vegetable and farinaceous food, that greater attention should be paid to the cooking of the food, to the serving of the meals, and all the necessary accompaniments As she was convinced that women were the best judges of such domestic matters, she ventured to call the attention of all lady guardians, especially, to these matters in infirmaries and work-houses, believing that no more important subject than this could claim their care and consideration

At a recent meeting of the Academy of Medicine in Paris, Professor Bonafoux read a paper upon a powder which posesses great hæmostatic powers, and is capable, it is said, of arresting the bleeding of large arteries, so that it will prove serviceable in important surgical operations This powder is composed of equal parts of colophony, carbon, and gum arabic Experiments have been made with it on the brachial artery in man and on the smaller vessels, on the carotid of the horse and other vessels of the same animal, with marked success It has always prevented consecutive hæmorrhage The application can be lifted in the course of two days, when the vessels are found to be completely obliterated

Professor Burdon Sanderson delivered a lecture at the Royal Institution on "Cholera, Its Causes and Prevention" Sir Frederick Abel presided The Professor gave a short history of the manner in which at various periods the disease had spread, and said that those who resided at the West and North of London need have no fear as to the cholera if it fixed itself again in the east of the Metropolis, but he ventured to predict that if the disease intended to attack London this year, it would long ago have been on the march

C O M

DOMESTIC CORRESPONDENCE

NEW YORK LETTER

(FROM OUR OWN CORRESPONDENT)

Rupture of the Perineum—The Forceps and Chloroform in Labor

The New York County Medical Association brought the year's work to a close in a very satisfactory manner at its last meeting before the summer vacation, which was held on the 15th, at the Carnegie Laboratory To show that it was a pretty full evening's entertainment, as well as to indicate the quality of the same, the order of exercises is herewith appended

I 8 P M A few practical remarks on Rupture of the Perineum By Frank H Hamilton, M D

II 8 30 P M Persistent Flatness over the Liver, as proof that Acute Diffuse Peritonitis is not associated with Intestinal or Gastric Perforation By Austin Flint, M D

III 8 45 P M Intussusception of the Intestines, with the report of a case By Charles S Wood, M D

IV 9 10 P M A Method of Direct Local Treatment for Diseases in the Region of the Ileo Cœcal Valve, and also for the Safe Removal of Impactions of the Intestines By Charles A Leale, M D

V 9 20 P M Presentation of Specimens

VI Discussion of Papers in their numerical order

VII Executive Session

In presenting his paper, the venerable surgeon who was first on the programme explained that he would be unable to read it himself for lack of voice, as he had been that day no less than nine hours on the witness stand (in connection with the famous Hoyt will case), and he therefore called upon the corresponding secretary, Dr John Shrady, to read it for him

Many of the views expressed by Dr Hamilton were somewhat at variance with those commonly entertained at the present day though there was very much sound common sense in the paper. It was unjust, he thought, to say that rupture of the perineum was an accident which could always, or even generally, be prevented by the skill of the accoucheur, since its occurrence was often due to conditions and circumstances over which the latter had no control. Thus, the perineum may be unusually deep in its antero-posterior diameter, or unusually thin and delicate, or less elastic in its texture than natural, the sacrum and coccyx may not have the proper curve to direct the head towards the pubes, the head itself may be large and unyielding, the uterine contractions may be too violent and rapid to allow the perineum time to become gradually stretched and accommodated to the head. There were, indeed, many causes, he said, which might determine this result, which were wholly beyond the power of the accoucheur to control.

The idea of "supporting the perineum," as commonly inculcated by obstetrical teachers, he believed could not be sustained either by any sound mechanical theory or by experience. If the intention was to delay the advance of the child, the intention was a good one, but this method of seeking to accomplish it was of no value. No resistance, or none which could ever be considered justifiable, applied to the perineum, could appreciably delay the advance of the child when the uterus was acting with its normal or with unusual vigor, and under no other circumstances would it be required. If the purpose of making pressure upon the perineum, however, was to carry the head forward toward the pubes, the suggestion had a meaning, and could be understood. This was certainly advisable whenever, from the lack of curve in the sacrum and coccyx, or from any other cause, the vertex did not take this direction, but these examples were rare and exceptional.

Sometimes, of course, the accoucheur was responsible for the accident of rupture, but his responsibility was likely to consist in what he might actually have done, rather than in what he might have omitted to do. Some modern authorities did not think the danger of rupture of the perineum was increased by the use of the forceps, if they were only used skilfully, but it certainly must increase the danger if they were used unskilfully, and when, in the hands of even the most skilful, the instrument was retained in position until the head had entirely escaped from the vulva. Nor did it appear to him that the argument in their defense was conclusive, even when the forceps were employed only to bring the head into the lower strait, and then withdrawn, leaving nature to complete the recovery. It was claimed that by this simple manœuvre the process of natural labor might often be greatly expedited, but this was the very thing which, according to his notions, it was generally most desirable to avoid, so that the perineum, as Meigs used to say, might "not be taken by surprise." In short, there was less danger to the perineum when the head did not come upon it forcibly and unexpectedly, and before the head itself had undergone the process of moulding and elongation. Dr. Hamilton, in referring to the fact that since the time when he commenced the practise of medicine the question of instrumental labor had undergone a complete revolution, said: "I was a pupil of Dewees, and was taught that the forceps was seldom required, but to-day the teaching is altogether different, and there are now many gynæcologists who count their instrumental labors by the thousands. A young man who was urging me to apply the forceps to his patient, but in which case the result proved that it was unnecessary, told me that a friend of his, a recent graduate of one of our city schools, and who was doing a large obstetrical practice in a neighboring town, assured him that he never put a woman to bed without forceps. I do not hold this young man's teachers responsible for his practice, but the fact illustrates what is now the drift of professional opinion."

As far as he was able to judge from the obstetrical experience of his early life and the surgical experience of his later life, grave perineal lesions were more common now than formerly, and this increase had been coincident with the increased use of forceps and of anæsthetics in labor. The effects of anæsthetics were by no means in all cases limited to the alleviation or abolition of pain when employed in the case of the parturient female. In most cases they exerted a positive influence upon the uterine contractions, and in this respect they were capricious, not infrequently increasing the frequency and strength of the contractions, and thus contributing to the production of a perineal rupture. In other cases he had seen the contractions temporarily suspended under their influence, and serious uterine inertia induced. "While there can be no doubt," he continued, "that the forceps and anæsthetics have been of incalculable service to parturient women, I have a strong conviction that, since they have come into such common and almost universal use, they have done a great deal of harm. I believe that the time is not distant in the future when it will become apparent to all that we have in these matters progressed too rapidly, and possibly that our progress has been altogether in the wrong direction."

In case a perineal laceration involved any considerable portion of the perineum, extending nearly or quite to the outer surface of the sphincter ani, the closure of the rent was desirable, inasmuch as in a certain proportion of cases it was followed by a relaxation and falling of the vaginal walls, with a consequent displacement of the uterus, though it had often happened to him to see women in whom the rent had extended through the entire perineum, who had after the lapse of many years suffered no inconvenience from this source. The occurrence of a deficient perineum and of prolapsus uteri did not always stand in the relation of cause and effect. The perineum in its most perfect condition, and when the uterus occupied its normal position, gave no direct support to the latter, and the uterus might be made to descend from many causes, whether the perineum were sound or not. The absence of the perineum, when the vagina and uterus were in their normal conditions, could only influence the descent of the uterus by first inducing atony of the muscular fibres of the vagina, with congestion and prolapse of the vaginal walls, by which not only the feeble and indirect support which the perineum gave to the uterus was removed, but the vaginal walls became a dead weight to drag the uterus downward

Dr Hamilton said he could not agree with some modern gynæcologists as to the advisability of the immediate or primary operation The parts have suffered such a degree of stretching and contusion as to render the occurrence of inflammatory reaction, if not of sloughing, almost inevitable, the lochial discharges will make it impossible to keep the parts clean, the operation itself inflicts a severe injury when the condition of the patient is already critical from other causes, and, finally, because under judicious management the rent frequently becomes partially and sufficiently closed spontaneously

It was useless to expect union by first intention, as a rule, and, therefore, while the parts should not be needlessly or forcibly drawn asunder, they might be carefully exposed to view each day and made clean by ablution, the urine in the meanwhile being always drawn by a flexible catheter In the secondary operation he prefers the old fashioned one with the quill suture, with the exception that he uses sections of a rather large-sized flexible bougie in place of quills He stated that he does not find the wire suture so easy to introduce or to remove as the silk, and that he has not found it, where the perineum alone is torn, to possess advantages in any other respect If, however, the rent or loss of structure involves any considerable portion of the retro vaginal septum, he would recommend, so far at least as the rectal fissure is concerned, the wire suture, either with or without Bozeman's clamps

In a few extemporaneous remarks which he made after the paper had been read, Dr Hamilton criticised Dr Fordyce Barker's views in regard to the action of chloroform during labor Dr Barker claimed, he said, that the use of this anæsthetic prevented laceration of the perineum, explaining the action in two ways In the first place, he said that it relaxed the muscular fibres of the sphincter vaginæ To him, however, this appeared to be a physical error, not to say absurdity, for when the sphincter was distended to such an enormous degree as was the case when the head was pressing upon the perineum, it was impossible for any constitutional measure, such as the administration of chloroform, to have any effect in relaxing the tension The second explanation was that the uterine action was somewhat suspended by the chloroform, and to that extent relieved the perineum, and Dr Hamilton remarked that this was satisfactory as far as it went, but when the head advanced, this influence would have no effect On the whole, therefore, he regarded the use of chloroform as an unnatural interference with labor

The veteran and distinguished obstetrician, Dr Isaac E Taylor, said that many of the views expressed by Dr Hamilton, were in consonance with his own, although he would take issue with him on some of the points of the paper A great variety of methods had been proposed for the management of the perineum during labor, but, as a rule, they were written clearly, philosophical, or physiological The correct plan was, he thought, to place the fingers entirely back of the perineum, on the space between the rectum and the coccyx In this way direct pressure could be made upon the child's forehead, and the perineum could be saved by delivering the head between the pains Placing the fingers in this situation also enables the accoucheur to prevent rupture of the perineum in occipito posterior positions, by changing the latter to face presentations The shoulders, however, he thought, were much more liable to produce laceration than the head, and great care, therefore, should always be taken in their delivery In regard to the use of anæsthetics, he said he made it a practice to go to his obstetric cases provided with both chloroform and ether He had long since noticed that in a certain proportion of cases chloroform had the effect of putting a stop to uterine contractions, and in these instances he had found that ether almost always had a very happy effect in bringing on the pains again If one of these agents did not answer, therefore, he would try the other, and he generally found that its action would be satisfactory Like Dr Hamilton, he disapproved of the immediate operation, and one reason was that not infrequently the mere effects of labor produced a paresis of the perineum, which gave it an appearance closely resembling a laceration, but which afterward entirely passed away, leaving the part intact

At the meeting of the Academy of Medicine, June 18th Dr H W Mitchell also read a paper on laceration of the perineum In it he gave a report of forty cases upon which he had operated during the past fifteen months, and in all of them he obtained union by first intention In one of the cases the patient was six months pregnant at the time, and the operation was done at her urgent request, on account of the discomfort which she suffered from the rupture She then went on to full term without any unpleasant symptoms, and the new perineum bore the strain of the labor in an entirely satisfactory manner P B P

PRIMARY MALIGNANT DISEASE OF THE KIDNEYS

EDITOR JOURNAL AMERICAN MEDICAL ASSOCIATION

Sir —In my paper on "Primary Malignant Disease of the Kidneys" published in your esteemed JOURNAL, I said, under the head of "Prognosis" "The inferior vena cava being filled with clots in such a great proportion of cases, I am surprised not to find any deaths from embolic processes " After the publication of the paper, Prof W Osler, of the University of Pennsylvania, wrote me that one of his cases referred to by me (p 620, 2d column, line 11 from top) died from embolism of the tricuspid orifice, a sarcomatous thrombus having become dislodged from the renal vein

In the table I also forgot to state that case 16 was one of sarcoma By inserting these additions in the next issue of the JOURNAL, you will confer a great favor on

Yours truly,

GEO MINCES

Dubuque, June 25, 1885

BOOK REVIEWS

The Student's Guide to Medical Jurisprudence By John Abercrombie, M D Cantab, M R C P Lecturer on Forensic Medicine at the Charing Cross Hospital Medical School, Corresponding Member of the Medico legal Society of New York, etc Sm 8vo, pp xii, 381 Philadelphia P Blakiston, Son & Co, 1885 Chicago W T Keener

The writer tells us in his preface, that this little book was written with the endeavor to condense and group together, in a readily assimilable form, the chief facts belonging to the important subject of Medical Jurisprudence, and that it is not addressed to those who have the leisure to study such standard works as those of Taylor, Tidy, Wharton, Stillé and others Whatever may have been the original intention of the author, he has succeeded in bringing together a marvelous array of useful facts, within the small compass of less than four hundred small pages, and to facilitate reference and study, very full and convenient marginal notes have been added After careful examination of the book, we have failed to find mention of one subject only, that of dynamite injuries, which, in view of the recent interest of the British public in the subject, should have received some notice Under the head of gun-shot wounds, the author has overlooked one of the most interesting cases on record, one reported by Mr Francis Ogston about a year and one-half ago, of suicide by a pistol shot, there being no external wound, the barrel of the revolver was placed in the mouth, and the bullet entering the foraman magnum glanced from the occipital bone to the frontal, and thence back to the occipital, where it was arrested

In dealing with the subject of poisons, all reference to the methods by which they may be detected in organic matters are omitted, which is very proper Analyses are seldom, and never should be made except by competent chemists, and the greater number of works on medical jurisprudence contain just enough information to get the pseudo analyst into a tangle Taken altogether, Dr Abercrombie has given us a very useful little book, and one which will be appreciated by those who wish to gain much information by a minimum amount of reading

MISCELLANEOUS

Vindicated —Recently the secular papers of Washington gave publicity to charges of mismanagement against Dr P J Murphy as physician to the Columbia Hospital, of that city We are glad to notice in a recent number of the *Washington Star* the following decision of the Board of Directors

"*Resolved* That we, the Directors of the Columbia Hospital, in committee of the whole, having granted full and ample hearing to statements criticising the officers and management of the institution, accord to Dr P J Murphy, the surgeon in charge, personally and in his general management, our continued confidence"

Honors —At the recent commencement of the Wooster College, Ohio, the degree of LL D was conferred upon Dr H Z Gill, of Cleveland, formerly of this State

Cholera Precautions in Russia —In view of the danger from cholera the department of the Caucasus has notified the Russian Government that all railways will be furnished with cars containing disinfectants and medicines (flying pharmacies), with corps of medical officers

The Index Medicus —Professor Heischi, of Vienna, has issued a circular calling upon German medical men to support this invaluable periodical, and the *St Petersburger Medicinische Wochenschrift* says that medical men should see to it that it does not fail for want of support.

Professor Richard Volkmann, of Halle, has been raised to the order of nobility

The Mind-Cure —The *London Times* intimates that Boston is responsible for the birth of this latest monstrosity, and says "The saying that extremes meet is never more true than when one of the extremes is transcendental rubbish of the kind that seems to have captivated the good people of Boston" And now comes the announcement that an *International Faith-Cure Conference* was recently held in London Extremes have met—but not in Boston

The New York State Board of Health —The Governor of New York has greatly interfered with the proper working of the Board by vetoing the bill appropriating $15,000 to its use

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM JUNE 20 1885 TO JUNE 26 1885

Major Albert Hartsuff, Surgeon, assigned to duty at Ft Hamilton, N Y H (S O 133, Dept East, June 24, 1885)

Major J V D Middleton, Surgeon, granted one month's leave, with permission to apply for 15 days' extension, to take effect about 15th proximo (S O 88, Dept Mo, June 19, 1885)

Captain Blair D Taylor, Assistant Surgeon, ordered from Dept Texas to Dept East

Captain Wm F Carter, Assistant Surgeon, ordered from Department East to Dept Texas (S O 141, A G O, June 20, 1885)

Captain Wm B Davis, Assistant Surgeon, leave of absence extended three months (S O 142, A G O, June 23, 1885)

First Lieutenant R G Ebert, Assistant Surgeon, granted leave of absence for one month, to take effect about July 5 (S O 97, Dept Col, June 17, 1885)

First Lieutenant R L Robertson, Assistant Surgeon, now on leave of absence, is directed to report in person by July 7, 1885, to commanding officer, Columbus Bks, Ohio, to accompany detachment of recruits to Dept Texas On completion of this duty, to rejoin his proper station S O 143, A G O, June 24, 1885)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY, DURING THE WEEK ENDING JUNE 27 1885

Bransford, John F, commissioned as Surgeon on active list, June 16, 1885

Ross, J W, Surgeon, detached from Naval Laboratory, June 30, 1885, and waiting orders

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol V | CHICAGO, JULY 11, 1885 | No 2

ORIGINAL ARTICLES

FISSURA ANI, OR FISSURE OR IRRITABLE ULCER OF THE BOWEL[1]

BY ARCHER ATKINSON, M D ,

MEMBER OF THE MICROSCOPICAL SOCIETY OF BALTIMORE OF THE BALTIMORE MEDICAL ASSOCIATION AND EX MEMBER OF THE ACADEMY OF SCIENCES OF MARYLAND

This paper treats of "Irritable Ulcer or Fissure of the Rectum," showing the greater frequency of this and other rectal diseases now than formerly, possibly from the greater facility at our hands for distinguishing such affections, from the habit of keeping statistics of such troubles, from the attention given them by specialists, and from the labors of such special surgeons as Allingham and Ashton of England, and Van Buren, Kelsey and others of New York

2 It includes a brief consideration of the anatomy of the part, as well as some of the reasons why this portion of the bowel is especially subject to such diseases

3 The seat and nature of fissure of the anus are considered

4 The causes producing and keeping it up

5 The analogy between fissure of the anus and of the nipple

6 The usual number of fissures found

7 A consideration of the symptoms and complications

8 Methods of treatment, both medical and surgical

Rectal diseases probably entail more chronic suffering on their victims than affections of other portions of the body Besides being distressing from the pain they produce, they incommode the individual in the ordinary duties of life Nor does it appear that sedentary persons are more exempt from these diseases than others We find the merchant, the minister, the professional man and the laborer about equally liable to these annoyances, in every walk of life we find more rectal troubles than ever before It has been thought they were more common among the better classes, but there now appears no just reason for this supposition The fact is that many persons so afflicted fancy after a few trials of various salves that nothing more can be done for their relief, and settle down to the determination to endure what they cannot help In males these diseases cause sympathetic irritation at the neck of the bladder and in the prostrate gland, while in females they give rise to both uterine and visical derangements as the result of continued straining from piles, with or without fissure

It is a well-known maxim in surgery that rest is the great desideratum in the healing of wounds The difficulty of imposing this rest renders our treatment of diseases of this region tedious, prolonged, and often nugatory For that reason, as from the reluctance of persons to consult us, such affections often reach the chronic state before they are made known to the physician Patients with diseases pronounced incurable, or which drag along for years, are likely to make the round of medical men until they exhaust both patience and resources, not stopping long enough with any one regular practitioner to derive benefit The diseases of the bowel are so annoying that the sufferer will lay hold of any promised hope of cure which assures him of freedom from the torture of knife, ligature, or of caustic It is time there should have been devised some methods of treating diseases of these parts, more encouraging to the patient as appearing less severe than by the plans just mentioned, but while a few cases may and do respond to the "Mild Cure," the greater number and the severer ones must, as before, be subjected to rational and truly surgical procedures Even in the few cases which respond to milder plans of treatment (rather medical than surgical) the time of treatment is prolonged to many weeks and months, when they could in one fourth the time and at half the cost be cured surgically

It is regarded as an advance in the treatment of affections of this region that the necessity for painful operations is less urgent than in what were called the rougher days of rectal surgery In the later treatment of hæmorrhoids is this particularly seen; the injection replacing the ligature, the scissors, the frightful clamp and the actual cautery We know that the rectum stands abuse well,—that even rough handling often does little or no injury, the organ rebelling only by contractions, while by careful manipulation we can educate the part to much tolerance, even to the introduction of the hand, and cases are known in which bottles have been pushed well up into the bowel without injury

The mucous membrane of the rectum is thick, tough, and loosely attached, so as to move about over the muscular layer, as does the lining of the œsophagus. This mucous surface also has folds, varying in size and direction, which allow of distension, whether from expulsive efforts or from the impaction so liable to occur in females. Near the anal orifice these folds are chiefly longitudinal from the folding up of the mucous lining, and it is among *these* that we are apt to find fissures locating themselves.

---

[1] Read in the section on Surgery and Anatomy at the Thirty sixth Annual Meeting of the American Medical Association

The rectum begins at the end of the sigmoid flexure or coil of the colon, and runs about seven or seven and a half inches to reach the anus. This tube lies flattened on itself like other hollow tubes in the body, and is open only when distended to give passage to the fæces, the distension depending on the amount and condition of the excrement, moulded or soft, as the case may be. This fæcal matter should be moulded into a firm mass, averaging ¾ to 1 inch in diameter, yet if hard it may reach 1½ inches, and in proportion to its hardness, its size and the force requisite to expel it becomes one of the factors in producing rents or fissures in the mucous membrane. In diarrhœa, cholera, cholera morbus, and in cholera infantum, we find the stools watery, with little or no fæcal admixture. In cholera the liquid stools like rice-water, consisting of detached epithelial cells. In cholera morbus we have some fæcal matter much thinned out; and in dysentery there is loose fæcal matter mixed with blood, mucus, and hard scybala. In the diarrhœa from taking iron too freely, or from drinking chalybeate waters, there are usually black liquid discharges as the result of the constipation, which is so often the first visible effect of these waters. In bilious operations we find the slate color of the vitiated bile and of the sulphuretted secretions, while the discharges from calomel may be yellow like the yolk of egg, or green, or even perfectly black as tar, or of a slate color. Large doses of turpentine commonly produce black, tarry stools. Bismuth now and then causes black actions, but in some cases we find this mixed with green. Podophyllin usually gives yellow actions, attended by straining and nausea.

The consistence of the fæces ranges from the thinnest to the hard, firm, thick mass, which forms in such as confine their eating to simple bread and meat, without the admixture of vegetables or fruits to give softness to the mass. We find a good illustration in the manure of the horse when fed on oats and mash, or simply on uncut hay and no soft stuff. In the healthy horse fed on hay and grain we notice that as soon as the animal starts off in the morning he is likely to stool, and this is regarded as the sign of a healthy bowel. Such stools then will be firm enough to form into balls from the size of a walnut to that of a small orange. In the healthy man there is usually a more compact condition, with fewer small balls, and a more elongated cylindrical shape. The fæces will depend on the food, thin or solid according to the amount of vegetable or fluid diet, or it may be always solid or liquid according as he is subject to constipation or chronic diarrhœa.

This digression leads us to one of the frequent causes of fissure of the anus, a condition easily becoming chronic, and it is not uncommon to find the perineum around take on a chapped or cracked eczematous inflammation, which runs into the chronic state, to become a source of annoyance both to patient and physician. I am sure I have seen some tormenting cases of pruritus ani proceed just from this condition of things, the crack being in a state of daily irritation from repeated distension after awhile kindles up an eczema with more or less extravasation around, and repeated handling and scratching keep the parts irritated, causing sympathetic irritation at the neck of the bladder, and much suffering. We find now and then a chapped condition of the nates and genitals of infants from contact of urine, but unless this exists just where the skin joins the mucous membrane of the anus, we do not term it "Fissure," nor do we so call the occasional chapped condition behind the scrotum and on the perineum of young boys, which is attended by eczematous itching, lasting usually for months in spite of treatment.

Webster defined "*Fissure*" from the Latin "Fissura," as a cleft, a narrow chasm, made by the parting of any substance, a longitudinal opening. Worcester derives it from *findo*, I cleave, as a narrow opening where a breach has been made, a cleft, a crevice. Nysten, in his valuable French Medical Dictionary, defined "Fissure" as any narrow and shallow solution of continuity of a soft part, but especially is this term given to an *elongated superficial ulcer* which is developed toward the margin of the anus, *between the folds of the mucous membrane*. They often have *hard callous* edges, give great *pain*, and cause *spasm* of the anus." Duhring says, "Fissures are *linear* wounds having their seat in the epidermis or corium. Any portion which is liable to extreme tension may become the seat of fissure." Velpeau describes it as a "small ulcer (Fissure of Anus), straight and more or less elongated, which finds its seat amid the folds of the anus, and which gives rise to sharp pains when the person affected goes to stool." Vidal calls fissure and ulcer one and the same, describing the fissure as a small, narrow, elongated ulcer, a kind of crack, which we find between the folds of the anus, and which is attended by very *sharp pains* in the part. He says the first work on the subject was by Le monverrier, in 1689, of which the title was a "Treatise on Fistule of the Anus," in which the author compares the ulcer to a crack or a chap in the lips and hands, very likely mistaking this condition in his day for fistula.

Mr. Allingham speaks of Fissure and painful Ulcer of the Rectum as the same affection, meaning the ulcer at the rim of the anus and just around it, and not higher up in the bowel. Boyer, in his 10th vol. of "Traitè des Maladies Chirurgicales," published in 1825, mentions this kind of ulcer of the rectum.

There are several kinds of ulcer which may occur at and around the anus, but of the seven recognized varieties we propose to consider only that known as simple irritable ulcer, or fissure of the bowel, and if we touch on other forms it will be merely for the purpose of differentiation. All ulcers here located will cause pain, but true fissure is the most annoying. We know that scrofulous and tubercular diatheses and chronic syphilis all so modify the nature of structures as to enhance much the gravity of any sore. Ulcerations from dysenteric inflammation will not be placed in our list, as such solutions occur higher up in the bowel, as the result of sloughing, to such a degree as bring on more or less stricture from cicatricial repair. Mucous plaques or soft tubercles are, as a rule, too shallow to cause much genuine ulceration, and assume the circular rather than the elongated form of fissure; besides, they are in most cases quickly answerable to the application of the corrosive crystal and to the strong phenol sodique, and melt away like snow on the pushing of constitutional remedies at high doses. Simple ulcers of the anus are almost always traumatic.

It is common for piles to become more or less ulcerated, and this ulceration may end in fissure. Foreign bodies, or fish bones, broken glass, and mineral concretions may all give rise to it. Ulcers here may result from the removal of hæmorrhoids by incision, by the ligature, or by the clamp. Too frequent application of caustics, acid or solid, may give rise to this condition, and indeed where any injury is located about the rim of the bowel it is not difficult for an irritable ulcer to result, and such ulcer here differs from ulcers elsewhere only from the mechanical obstructions offered to their healing. Any sore placed under the same disadvantageous influences might be as painful and just as averse to healing, and the same ulcer will give more or less pain according to the sensitiveness of the part and the contractible efforts of the external sphincter muscle, near or on which it may be located.

When an ulcer is located at or near the juncture of the skin and mucous membrane, it is very difficult to cure, and especially is this true when the orifice is alternately in a state of contraction and distension, as about the mouth and anus. This ulcer then becomes deepened and elongated, constituting a true fissure.

Duhring speaks of the scrotum as liable to eczematous inflammation, where moisture, crusts and painful fissures are prone to occur, followed by extensive thickening and intense itching. It is not difficult then for this same eczematous trouble to extend back along the perineum and reach the anus. The same writer says that fissures often of great size are present (eczema ani), and pain consequently attends each motion of the bowels. Fissures too may occur in pruritus ani, caused by inordinate scratching, chiefly during sleep. It is often difficult to appreciate the great amount of suffering in these cases, considering the slight anatomical lesion which attends it.

As to the frequency of fissure among rectal diseases, Boyer had already seen 100 cases before publishing his work, and Vidal operated on ten cases in 1839 alone. Fissure would appear to rank third among these affections in an analysis of cases numbering 4,000, observed by Mr. Allingham among the out-door patients in St. Mark's Hospital, in London, fistula numbering 1,208, next coming hæmorrhoids, internal and external, 1,065, and third in order he places fissure, or painful ulcer, at 446, that is about ten per cent. This list is taken exclusively from the working classes, yet while the proportion of fistulæ is so large, many ascribe for years their sufferings to hæmorrhoids, when a careful examination would quickly set them right. The masses appear to know but little of such diseases beyond piles and fistulæ.

Any injury about the anus may excite inflammation, which may give rise to abscess or fissure. Bruises are apt to end in fistulous abscesses, but excoriations, whether from excessive horse back exercise or continued riding on hot cushions, the excoriating discharges of leucorrhœa or eczema, or any abrasion long kept up, may give rise to fissure. We have stated that fissures are apt to occupy the base of redundant tissue (tabs), or the base of some hæmorrhoidal tumor, and Ashton mentions a typical case seated just between two such tumors, close up to the external sphincter, and which healed up after the use of nitrate of silver under chloroform in less than thirty days, an unusually brief time. The after dressing consisted of spermaceti ointment, with the extract of belladonna and acetate of lead. He also injected sulphate of zinc solution night and morning after the spasmodic action of the sphincter muscle had subsided. Fissures are constantly showing efforts to heal, but the parts are not kept long enough in repose to admit of such repair, and such as are tubercular manifest no such inclination, but tend to spread in superficies rather than in length.

Ashton thought fissure occurred mostly in middle life and in the laboring man. Vidal says that adults are chiefly subject to this affection, and Boyer had never seen it in infants or youths, and most of the cases seen by him were from 25 to 40 years of age, and some beyond, one case being over 60 years. Mr. Allingham has seen it in the young infant, as well as in old age. He considers it most common in females, while Vidal scarcely ever operated on any except females, probably because of his long connection with the female wards in the Hôpital du Midi, in Paris. Furthermore, we find most fissures occurring in this sex from the fact of the rectum being closely bound to the vagina, so as to prevent laceration in labor. Before Boyer's day this trouble was pretty much ignored, the older surgeons ascribing it to hæmorrhoids, to venereal trouble, and to superficial ulcerations about the parts. Velpeau places fissure at various points, in some cases on the left, and others on the right of the rim, sometimes in front and sometimes in rear, but the favorite seat is at the posterior commissure of the anal opening. Just where the skin merges into mucous membrane is where we are most apt to find the ulceration. Dupuytren made three seats of fissure, however: one just above the lower sphincter, one just below this muscle, and the third just on a level with it, and this last he makes the most painful, and by far the most difficult to cure. In some cases the slit lies below and in others just above the anal ring, and there are fissures which produce nervous accidents *only* when the ulceration actually touches the ring itself.

Blondin supposed that fissures seated above or below the sphincter readily healed, while such as were located on the muscle proper gave most trouble, but Velpeau attaches little importance to this distinction, and has known fissures which had no relation to the sphincter, in any way give rise to great suffering, and some cases are attended by shooting pains down the thighs and the calves of the limb

Usually we find but one ulcer or fissure, but in some cases, even free from syphilitic taint, we may find two or more, as in the case of a lady I recently treated Where syphilitic or gonorrhœal vegetations or syphilitic soft tubercles have existed about the rim there may be any number of shallow fissures-like ulcerations, like soft chancres running, it may be, into quite a long ulcer They have a base more or less hardened, and may even give an indurated elastic feel to the surrounding parts They do not often yield purulent fluid, and may remain superficial for a great while In the lady referred to, the trouble was pruritis ani (itching piles), and three separate fissure-like chaps were found, the longest at the posterior commissure overlapped by a tab caused by repeated scratching, the second was nearly opposite, in front, while the third was about one-half an inch to the left side, just over an indurated mass the size of a small hazelnut She is never troubled with constipation, strange to relate Here there is a case of excoriated perineum with fissure-like abrasions, which are not allowed time to heal before they are made raw again, and they look as if they would cure up in a few days, if left alone They would constitute true fissures if they were seated *nearer* to the rim of the bowel The flabby tabs here keep up a secretion which renders the part soft and liable to crack open Such tabs are apt to be accompanied by fissure of the anus

The causes of fissure in this region are often obscure Moisture alone tends to produce as well as to keep it up, and *itching piles* are likely to be attended by an adjacent ulcer In some patients it is preceded by occasional hæmorrhoidal swellings, which do not attain to the real dignity of a pile, in others true hæmorrhoids after excision leave the chapped or fissured condition, and Thébault mentions a case showing that fissure followed a simple excoriation produced by the awkward introduction of the nozzle of a syringe

Habitual constipation is probably the most frequent cause of this trouble and once set up the part is prevented from healing by the repeated distension and contraction in the natural course of function Diarrhœa and chronic dysentery may produce and keep up the disease Soft syphilitic tubercle may readily extend to and end in a fissure—though this lesion may for a long time remain superficial Nearly all syphilitic patients have these soft tubercles or plaques muqueuses about the perineum—about the nates, beneath the prepuce and body of the organ, as well as just behind the scrotum, and rents and fissures may occur in any of these parts, but they do not occasion the same suffering as the irritable ulcers or fissures of the anus

Velpeau gives the causes of fissure, as constipation, hæmorrhoids, the passage of large hard fæcal masses,—indeed, from anything which excoriates or tears the part superficially, but he also adds that it more frequently arises *without any assignable cause*

We find an analogy between the fissure we are studying and that observed in the nipple of nursing women in the early months of lactation, the nipple becoming tender and aphthous from the flowing milk during the intervals of nursing, from the repeated contact of the child's mouth, and from the forcible dragging of the part in the act of nursing In the case of a lady recently seen, the nipple was so painfully fissured that blood escaped at each effort to nurse the child Astringents did no good—collodion failed entirely, and no relief was afforded until a shield of very thin rubber was put on the nipple to enable the infant to nurse through as well as to keep the part dry from the overflow of milk This precaution failed to promote healing, until, by a happy thought, I wrote for iodoform in balsam of Peru This was applied after cleansing thoroughly with carbolized wash and drying with a bit of soft cotton In a few days the part was free from tenderness and the mother continued her duties as nurse This mechanism of fissure and nipple is like that in the rectum, with the advantage in favor of the nipple, however

We can appreciate the exquisite pain in fissure of the anus when we remember that the nerves of the rectum are many, coming from two sources, viz, from the cerebro spinal system and from the sympathetic,—the cerebro spinal coming from the sacral plexus while the sympathetic proceeds from the hypogastric plexus The lesion being located just among the terminals of these nerves, and on or near the real external sphincter muscle, which surrounds the very end of the bowel, gives rise to the sharpest suffering This muscle lies just beneath the tough skin, and when kept in a constant state of irritation and spasm causes the extreme suffering so much complained of This condition, as before stated, is mostly seen in females, the bowel being closely connected with the back of the vagina by dense cellular tissue

Although we first see the disease as an ulcer, it is likely that it always begins as a simple chap or crack, except, perhaps, in syphilitic cases At first it resembles the chapped condition of the lip in cold, windy weather, but soon takes on the nature and behavior of an ulcer, except that it furnishes but little pus, it is about one eighth of an inch in width, and one fourth or less in length, with its edges at first sharply defined, but soon taking on induration, and the surface may go on extending till it becomes quite a large ulcer In many cases the trouble comes on in an almost insensible manner, the first notice of it being a slight itching with little or no pain, some heat, and a sense of crawling This may last for a year or even longer before actual pain sets in In other cases it attains its worst form in a few weeks All fissures are not equally painful, some being so only at intervals As a rule the longer and deeper the fissure the more painful it becomes

We now and then find vegetations in gonorrhœal women, giving rise to an acrid discharge, which moistens the perineum and keeps the anus bathed in pus and more or less chapped In true syphilitic abrasions the itching is less This condition yields to snipping off the vegetations, or to calomel powder, or to touching with the bichloride crystal Tabs from old external piles keep up a moist condition about their base, and it is here that we are likely to find fissure located, as seen in the case of a gentleman, aged 87 years, who has now the remains of a large fissure on the left anterior portion of the rim of the bowel It is difficult to say what initiated it, but for many years his habit was to strain violently at stool, and to spend half an hour or more on the commode A year ago this fissure became very painful The bowels were kept soft by gentle laxatives, and an occasional injection of tepid water or a soft suppository, the part being gently washed with a soft sponge and dried after each operation, and a little iodoform ointment being placed within the folds This becoming objectionable, a two grain wash of carbolic acid was substituted This fissure is now entirely healed There were two tabs, the fissure lying just beneath and to the side of the larger one Many years before this patient had suffered from external piles, which, suppurating, left the tabs mentioned

Another patient from a distance had three large hæmorrhoids, attended with great prostatic trouble and annoying prolapse of the bowel The fissure which had existed two years before had been cured by injections of krameria, he said, at last there remained no trace of it Two of the hæmorrhoids were so much reduced by treatment, and the prolapse and prostatic trouble so completely relieved that he went home satisfied for the time In this case there were fleshy growths which kept the parts continually moistened and the large hæmorrhoid caused annoying prolapse of the bowel The hæmorrhoids were destroyed and the prolapse cured by injections of strychnia Ashton mentions a typical case of fissure seated between two hæmorrhoids, which healed in thirty days after the use of nitrate of silver

Symptoms—At first the patient experiences some heat and smarting at the moment of defecation, the harder the mass the greater the smarting It is not always at this time that these sensations are worse, but for an hour or more the patient dreads the return of the pain He knows from experience how it will be, defers the evacuation until the habit of costiveness is contracted, when he experiences absolute pain at each effort This may go on for months and years until life will become a burden The patient, dreading the consequences, eats but little, till he loses strength and looks as one with some severe organic disease He, at first, imagines that he is chafed or that he has slight piles Often at the end of a few days these symptoms may disappear if he is careful as to cleanliness and costiveness This relief is but temporary, soon the heat and smarting return, the uneasiness continuing for a longer time, the stools being now and then streaked with blood and some pus Some comfort is now derived from mild laxatives, from clysters, and from a cooling diet Soon these measures lose their effect, and the disease goes on steadily increasing Some have to resort to aperients every two days, with now and then an injection If he goes several days without an action he describes the pain as that of a heated iron being passed into the bowel He feels a convulsive contraction, and even spells of fainting, and the finger introduced into the rectum meets with spasmodic contraction of the sphincter, which is kept irritable all the time These pains are not the same in all persons, and even in the same patient will vary in kind and intensity

After the stool there remains more or less lancinating pain and even pulsation, as though the part were about to gather Boyer once saw a female who had fever after each action Violent exercise, sitting on hot cushions, and the drinking of wine, all augment the suffering Velpeau mentions a case in which the patient said he would rather die than have another action of the bowels In some females the suffering increases at each menstrual period The pain once begun is increased by each motion of the body, some are unable to sit up, while others can scarcely lie down in bed The pain is augmented by the presence of fæcal matter in the rectal pouch Even liquid stools excite pain and Boyer cites the case of a patient who suffered even during the passage of flatus The degree of pain varies with the susceptibility of the person and with the location of the sore on a nerve branch or on the sphincter Boyer contended that this spasm of the sphincter caused the fissure, and that incision of this muscle without touching the ulcer at once quieted the pains, but Trousseau claimed, as did Velpeau, that the fissure is the original lesion, and serves to keep up the spasm of the sphincter

The two most constant attendants on this trouble are the spasmodic contraction of the anus, and the sensation of burning, while the presence of the ulcer may be wanting, in such cases an incision into the part has afforded prompt relief Again, there may be one or more small ulcers which cannot be found, but which cause pain on passage of the fæces over them Mr Allingham cites eight cases in which there was spasmodic contraction without *any* fissure at all The suffering may be due partly to the erectile nature of the skin and mucous membrane just at the verge of the bowel, as well as to density of fascia

To recapitulate, then, the symptoms of irritable ulcer or fissure of the bowel, there are severe, smarting and burning, sharp pains, continuing for an hour or longer, spasmodic contractions of the external sphincter muscle, with a narrow elongated fissure, or irritable ulcer, generally shallow, at the end of the rectal tube We may find just the smallest amount of pus, but commonly the torn part has the bright red color of fresh beef, except that we sometimes find a grayish coat along its base or floor

The diagnosis is mainly effected by sight and by the touch When the chap cannot be seen, we may suspect its presence by the touch, the finger in the rectum detecting an irregularity at a certain point, or producing pain enough to cause flinching, the finger encountering a sharp constriction by closure of the ring, this is one of the main distinguishing characteristics of the presence of fissure The returning finger is often streaked with a little blood or pus The moulded stool may have a trace of bloody pus on the side on which the fissure is located The contact of the finger or probe gives exquisite pain Straining often reveals the presence of the fissure without further examination

To obtain a good view, it is best to pull aside the buttocks so as to open the anal ring and direct the patient to strain the bowel having been previously cleaned out by a cold water enema In some few cases we may see the lower end of the ulcer without even this precaution In others we will find no ulcer at all It is not often that we need the speculum to bring the lesion into view When we find the patient flinch and cry out with pain, when the finger is very gently introduced, and the sphincter closes suddenly and tightly, we may be sure that there is a fissure

The distinguishing signs of fissure, then, are 1 The violent contraction with pain of the sphincter muscle, 2 A burning pain at the moment of expulsion of the stool and just afterwards, 3 A superficial ulcer, narrow and long, just at the entrance of the bowel These three circumstances are sufficient to form a diagnosis In making examinations in painful cases, or in process of dilatation or incision, we may profit by the anæsthetic action of the hydrochlorate of cocaine, a few drops of the five per cent solution being rubbed in and around the parts, and allowed to remain for fifteen minutes before beginning our manipulations, the action of this agent being slow on the rectal mucous membrane

Along with fissure may exist wart like excrescences and hæmorrhoidal tumors, though they are by no means necessarily present Again, a hæmorrhoidal tumor just above the external sphincter muscle may become ulcerated about its base, and this small ulcer becomes continuous with the outer surface, keeping up painful spasmodic contraction In every case of fissure the anus and the parts around it may sympathize to a greater or less extent, especially in old cases Howe once mistook a fissure for an enlarged prostate gland from the great amount of lymphatic irritation set up in the vicinity Retention of urine and difficult micturition have been noticed, and now and then the whole nervous system is affected, the sufferer relapsing into a melancholic state Patients often complain of the sympathetic disturbances, forgetful of the pains about the rectum proper, or may refer them entirely to hæmorrhoids which may not even exist, while the physician directs his remedies to the relief of the remote trouble Vidal mentions one case in which a woman referred all her sufferings to the jaw, experiencing the same rigid stiffness as in true trismus

The treatment of fissure of the rectum may be divided into medical and surgical There are now and then cases which get well with no treatment at all, and which cause but little inconvenience, and it is mainly to this class that we look to the action of medicines to afford relief Others may heal up without applications or operation, and yet for years produce much suffering Two cases are cited, which lasted, one for three years, the other for five years, both ending in perfect cures without any interference whatever Ashton asserts that in most cases, in the early stage, an operation is not successful, and reports several cases of cure without such resort He lays great stress on lead water and opium, and cites the case of a fissure occurring to a man at stool, which cured in 18 days without surgical interference Dr Parker, of Richmond, Virginia, writes me of two cases cured simply by confining them to rigid fluid diet, and Velpeau gives the case of a medical student who suffered for eight years with fissure, which cured up without any treatment Boyer cured cases with an ointment made of leek juice, mulberry juice and the oil of sweet almonds Of this he would inject a little into the bowel each day Velpeau cured several cases with the ointment of ammoniated mercury

In any plan of treatment perfect cleanliness is all important, the patient being especially careful against rough handling He should dry the part by patting with a soft linen or a velvety sponge One of the mildest applications would be the simple or the benzoated ointment of the oxide of zinc, into which the aqueous extract of opium has been incorporated, or to this may be added equal parts of Hebra's ointment of litharge, very finely rubbed down Allingham's ointment, consisting of calomel, extract of opium and of belladonna, rubbed up with the ointment of sambucus or elder, is also useful The gentlest handling should be exercised in these cases The pile ointment of Prof N R Smith, of Baltimore, is also useful, and indeed is soothing in pruritus ani, with or without fissure Lead washes give temporary relief with or without the extract of opium Occasionally the solution of nitrate of silver does well to stimulate the indolent base of the fissure, provided the bowel be first emptied above and below, and then well splinted with opium, and the patient be kept on fluid food An ounce injection of cold water with 40 drops of tinct opii and a little starch will wonderfully assuage the sufferings from spasm of the sphincter, cautioning against contracting the opium habit, for the relief afforded is so great that the patient is attempted to repeat it each night Two things should be insisted on in beginning the treatment Regulation of the bowels and perfect cleanliness of the part To accomplish the former some measures must be adopted to secure a soft action each day Some prefer the morning for this, but night is the best time, as the patient may bathe and anoint, and then be quiet

Often an anodyne suppository is very useful, containing two grains of the watery extract of opium, or the same with two to five grains of iodoform and balsam Peru If the patient is robust it is well to open the bowels with the pil hydrarg, or the mild chloride, in dose sufficient to arouse the duodenum and gall bladder This may or may not be followed by castor oil mixture Once the motions are softish it is quite easy to keep them so with the compound liquorice powder, the electuary of sulphur or of senna, by the Buckthorn cordial, the cascara fluid extract in gentle doses, or by the saline aperients or any of the purgative waters, of which so many are now on the market Unless we have to deal with a fissure resulting from secondary syphilitic abrasion, the constitutional action of mercury is not to be thought of

It is wonderful how a cold water injection now and then lessens the occurrence of spasm of the bowel by aiding the passage of fæcal matter, which, without the injection, would remain hard and distend the tender part Besides, the tonic action of the cold water does good itself Care must be taken, however, not to destroy the tone of the bowel by injections Sometimes warm, again cold, ablutions will give most relief to the pain Mr Ashton praises an ointment composed of gr xi of acetate of lead, ʒi of extract of belladonna, and ℥i of spermaceti ointment, as well as an ointment of the oxide of zinc and extract of belladonna, applying them on a bit of lint, and gently packing it into the fissure When the fissure is due to or is kept up by an ulcerated internal hæmorrhoid the only hope of relief is to destroy the pile The extract of rhatany (krameria) has long been reputed a curative agent for fissure, on account of its astringent properties It appears to restrict the flow of blood to the irritable part, and thus to promote healing, ʒi of the extract may be dissolved in ʒv of water, and this used as an injection night and morning, the patient retaining the injection as long as possible The extract of rhatany rubbed up with water was a favorite application with Nelaton The fluid extract, either pure or mixed with glycerine or ergot, is often used as an injection Gibson used injections of rhatany and caustic applications with success

Dupuytren successfully used an ointment made of extr belladon ʒij, lard ℥ij, honey and water, aa ℥j, this was introduced into the bowel by means of a mop, the size of the mop being gradually increased until the resistance of the sphincter was overcome The pain is quite severe at first, but soon ceases Velpeau said that when medication failed, the most efficacious measures are cauterizatian, dilatation and division of the sphincter and excision of the ulcer Nysten claims that cauterization with nitrate of silver should always be tried before the resort to the knife, the caustic should be applied thoroughly to the bottom and sides Beclard claims to have succeeded with this plan in all cases, though other operators have been disappointed by it The stick caustic acts, as does the heated wire, by changing the irritable ulcer into a simple fresh wound

Simple dilatation of the anal orifice has given good results in very many cases Dubois, of Paris, always succeeded with this, plan but the process is long, tedious and painful Velpeau found that it succeeded well with or without the use of ointments Boyer suggested division of the sphincter as the best and only method of curing fissure of the anus, a plan which is now followed by the greater number of surgeons In some cases he cut through the fissure, in others to the right or left, his theory being that the constriction caused the fissure and not the fissure the constriction He first emptied the bowel by injection or by a mild purgative, so that the patient would not be called upon to go to stool for a few days, and then cut entirely through the thickness of the sphincter muscle Some surgeons have modified this method by cutting only through half of the muscle, which seems to have the same good effect without the risk of causing paralysis of the bowel Syme conceived the idea of cutting through the base of the fissure, thus relaxing the part without causing paralysis of the bowel, leaving the greater portion of the muscle undivided Velpeau recorded two cases which died from section of the sphincter A few cases recover after forcible dilatation with the thumbs, but the tearing process is to be deprecated as cruel practice

Etherization of the rectum might be resorted to in these cases in order to facilitate dilatation just short of actual tearing, the rectal pouch being brought under the influence of the ether sufficiently to thoroughly benumb the part Rectal etherization has been followed by death, however, and the same object may be attained by using the five per cent solution of cocaine But whatever plan of treatment be adopted, the patient should, when practicable, call each day at the surgeon's office

If the ulcer is to be divided, a blunt pointed bistoury should be used, with a very sharp cutting edge, it should be placed vertically in the base of the ulcer and firmly pushed forwards or backwards, the part being kept moderately tense so as to facilitate the division of the muscular fibres The base of the ulcer may be thoroughly transfixed from below with the sharp point of a keen curved bistoury, and cutting upwards so as not to wound the opposite side of the bowel Should the fissure be located in the anterior commissure, great care should be taken not to injure the bulb Redundant tabs and polypoid growths should be removed in order to lessen the irritation and moisture, which serve to keep up the fissured condition

A suppository of the watery extract of opium with the extract of rhatany will serve to alleviate pain after the operation, and will assist in promoting healing, As with other ulcers, iodoform, with or without opium, made into suppositories with balsam of Peru and coca butter is of good service Tannin, iodoform and balsam of Peru also make a useful suppository for promoting healing Absolute rest should be enjoined so long as the means of the patient will allow When an opportunity offers, I shall use iodoform with collodion and opium hoping to hasten the healing process by the first, and to prevent reopening of the fissure by the second

The advantages are to be gained by excision are In not injuring the sphincter muscle, in not causing much of a wound, and in requiring only rest with a simple dressing to insure speedy healing

To recapitulate, then, the essentials for successful treatment of irritable ulcer of the rectum, there should be perfect rest of the bowel and of the entire body, when possible, for the few days necessary for the cure

Sound sleep should be secured by the use of opium, administered either by the mouth or hypodermatically, or preferably by an opium suppository each night When it is necessary that the bowels should move, the action should be facilitated by a cold water enema, containing laudanum if required, to wash out the mass and give tone to the parts The food should be such as will cause but little roughness in the bowel, and which will not produce fæces of such mass and consistency as to cause distension and tearing of the healing fissure

A CASE OF ACUTE PELVIC ABSCESS, WITH REMARKS[1]

BY WILLIAM WARREN POTTER, M D,

OF BUFFALO NEW YORK

Mrs B——, aged 38 years, twice married, and three times a mother from her first marriage, was seized with pain in the pelvic region on the night of March 17, 1884 I saw her first two days afterward, March 19, and found her suffering with intense pain low down in the abdomen, but particularly in the region of the right ovary, where the tenderness upon pressure was extreme The abdominal muscles were tense, the lower extremities were flexed, there was constant nausea, and micturition was difficult or impossible An examination, *per vaginum*, was made with difficulty because of the pain which it excited or increased, but the uterus was found low down in the pelvic cavity, with a patulous os, and the right ligament was very tender Bi manual palpation was attempted, but could not be satisfactorily employed by reason of the suffering which it inflicted Temperature 101 F, pulse 110 The patient had been consulting a so called clairvoyant doctor for some time previous to the date of my first visit, from whom she received advice for a supposed ovarian "trouble" This person prescribed "cotton root and gin," and Mrs B—— had taken two pints of this mixture during the two weeks prior to the illness we are considering, but of what strength I was unable to ascertain

Treatment Hypodermic injections of morphia and atropia hot fomentations to the abdomen, the hot vaginal douche by Foster's apparatus, and catheterization when necessary Quinine in antipyretic doses was administered per rectum The pain increased, or was only held in partial abeyance, during the succeeding few days, nausea and vomiting were uncontrollable, while the temperature continued to rise slowly, and the pulse ranged from 110 to 120 per minute Daily examination, *per vaginam*, disclosed an ever increasing fullness or hardness of the pelvic tissues and organs—visceral impaction—while the uterus was being gradually lifted up and pushed forwards under the pubic arch There had been slight rigors previously, and on the night of the 26th, one week after my first visit, there occurred a decided chill Next morning, the 27th, I found fluctuation behind the uterus, and deciding that an abscess was undoubtedly forming, I asked a consultation

In accordance with my request, Dr Thomas Lothrop saw the patient with me on the afternoon of the 27th, and confirmed the diagnosis of perimetric abscess At his suggestion we deferred surgical interference until the next day On the 28th she was placed under ether by my son, Dr F H Potter, and, with the assistance of Drs Thomas Lothrop and W S Tremaine, I drew off, with the aspirator, more than three pints of fetid pus, from an abscess occupying the field of Douglas' pouch The needle —a large one—was passed up behind the cervix and thrust through the vaginal vault in the median line After the abscess was evacuated the incision was enlarged with a bistoury, the aspirator needle serving as a guide, a drainage tube inserted, and the cavity washed out with mercuric chloride water, 1 to 3000

The condition of the patient after the operation was not favorable, she was emaciated, pulse 120, temperature 102° F, tongue dry and furred, with red margins, but the pain ceased almost immediately She was fed on iced champagne, which was the only medicine the stomach would retain, nourished by small enemata, and catheterization was continued On the 30th, two days subsequent to the operation, during my evening visit, I thought she was dying, the pulse was no longer perceptible, and she lost consciousness for a time, but rallied again under the hypodermic use of ether, brandy and alcohol, which were successively and rapidly administered

The pus cavity was washed out several times a day, first with the mercuric solution, 1 to 3000, and then with 2 per cent carbolic water This for the first five days after the operation, or until the 2d of April, then, finding the character of the discharge did not improve, but still retained the same dirty brownish color and fetid odor which it possessed at first, I began to cast about for a plan by which iodoform could be introduced into the cavity Noticing about this time a device by means of which Dr David Prince, of Illinois, carried this drug into the bladder in the treatment of cystitis, I prepared an emulsion of iodoform with starch according to his formula, and, after first thoroughly washing out the cavity, injected this iodoform emulsion into the abscess sac, retaining it there with a pine plug fitted into the mouth of the drainage tube From this time, day by day, the improvement was marked, and of a most satisfactory nature, the size of the cavity rapidly diminished, the quantity of pus correspondingly lessened, its fetid odor disappeared at once, the physical condition of the patient improved with amazing rapidity, so that by the 9th of April, twelve days after the operation, the cavity was closed and the drainage tube withdrawn Two days later the temperature and pulse were normal as to degree and rate, and buccal ingestion was resumed The patient remained under observation until May 1, when she was considered well except as to strength and flesh, but, in a few weeks more, these were entirely regained

The above synopsis is made from very full notes of the case, and though many details are, for the sake of brevity, omitted, it is yet believed to present all of its more important features Two competent nurses, one a graduate of a training school, were in constant attendance as long as their services were required, and to their faithful, intelligent, and untiring care is due, in a large measure, the successful issue here recorded

This case is not presented to the Section because of the novelty of the disease, nor yet because of any special claim to skilful or unique management in its conduct, but rather because it represents a form of disease with which we may, with propriety, become more and more familiar through frequent discussion, particularly as text books, for the most part, afford us meagre guidance in the matter Permit me, therefore, in passing, to mention one or two features of this case, which impressed me at the time as meriting thoughtful attention.

---

[1] Read in the Section on Obstetrics and Gynecology at the thirty sixth annual meeting of the American Medical Association

1. The rapidity with which so large an abscess formed, in the non-puerperal state.
2. The enormous quantity of pus found, and drawn off at the time of the operation.
3. The corresponding rapidity with which it filled by granulation, and finally closed.
4. The introduction of iodoform into the cavity, and the rapid changes which were apparently due to its use.
5. What part did the cotton root play in the causation of the abscess?

That the subject of pelvic abscess is engaging the attention of the profession at the present time more than at any preceding period, is apparent to every one who is at all familiar with its history. This is largely due, no doubt, to the fact that we have come to understand the value of drainage, and the frequent washing out of pus cavities with antiseptic liquids, by which methods better results have been obtained than was formerly the case. The diagnosis, too, is more readily made since the Sims' position, bi-manual palpation, and the aspirator needle have come into vogue. The cellular or connective tissue which fills the space intervening between the several pelvic organs is peculiarly exposed to the dangers of inflammation. These organs, to begin with, are very mobile, subject to various degrees of expansion and contraction, according as they are distended with normal or abnormal contents, or are suddenly, and mayhap violently, emptied of the same. Then, from without the body they suffer, not infrequently, from various vicious practices which are resorted to for the purpose of preventing conception, or possibly, interrupting its progress when it has already taken place. Again, cold water injections are made use of preceding and following, nay, even during menstruation, by a great number of women. For these and various other reasons, which I need not now take time to enumerate, the pelvic connective tissue seems especially liable to take on inflammatory action known as cellulitis. Suppuration is only one way in which it may terminate, though by no means is it an uncommon one.

A great impetus has been given to the study of diseases of the pelvic cellular tissue by the researches of Emmet, his published writings on pelvic cellulitis have, indeed, become classic. He was the first observer, so far as I know, to boldly assert that the diseases of the uterus and its appendages, in the non-pregnant state, which most writers regard as beginning primarily in those organs, really have their origin in the pelvic connective tissue as an etiological base, and are transmitted secondarily to the womb, ovaries, etc., in the form of metritis, ovaritis, and the various modifications of these maladies. Even a hasty glance at the anatomical peculiarities of the pelvis, with reference to the blood and nerve supply of the viscera, would establish a reasonable basis for this belief, for it will be observed that the blood vessels and nerves of the pelvic connective tissue are distributed with a lavishness which is not equalled in the same given space in any other locality. Furthermore, the uterus is nourished by blood which is received through the areolar tissue, its nerves, likewise, reach it through the same avenue. These vessels and nerves are doubled upon themselves and interwoven into meshes, until one, in attempting to trace them, becomes almost lost in the mazy labyrinth of vessel and fibre. This arrangement is wise in that it permits the necessary mobility of the organs, as well as the traction incident to gravidity, and displacements of the womb, without impinging upon the calibre of the vessels or rendering them tense, but it becomes an element of weakness in pathological conditions of the pelvic viscera, in the permission of great blood stasis. It is, therefore, easily understood how pelvic blood-stasis plays such an important part as an etiological factor in uterine disease, and in disorders of the subjacent organs and tissues.

These maladies, for the most part, in the non-pregnant woman, have their commencement in an undue fulness of the vessels of the connective tissue. The nidus is, perhaps, a trifling irritation, then arterial pressure is increased—the flux begins, there is next dilatation of the arterioles—tone is lost, the equilibrium between the venous and arterial systems is no longer maintained—there is venous engorgement, the nervous supply becomes deranged—there is nerve turmoil, in short, there is true blood-stasis. From blood-stasis to congestion is but a step, and then follow, in the natural order of sequence, the various phenomena of inflammatory action, which, if not arrested by prompt measures, frequently result in the formation of abscesses in the pelvic connective tissue. The formation of pus follows the breaking down of the lymph exudate or serum, which are the primary products thrown out by nature for her own protection, and this transmutation may be regarded as an evidence of dyscrasia. A number of small collections of pus are liable to coalesce and form an abscess, and this accumulation most frequently occurs directly behind the womb, or a little to one side, along the track of one or the other of the broad ligaments. Abscesses sometimes form in the substance of the ovaries and Fallopian tubes, a complicated form of pyo-salpinx, in which these organs have undergone complete degeneration.

The treatment of pelvic abscesses need not engage us long. The several methods which have been recommended will readily fall under one of two heads, viz.: the expectant or conservative plan, and that by evacuation, or the radical method. The expectant treatment was the method of yesterday, the treatment by evacuation is the system of to-day. Here, as elsewhere, pus is an enemy to the human body which should be gotten rid of as soon as possible after its existence is ascertained, and its locality defined. The late Professor Brickell, of New Orleans, has even taught that collections of serum in the pelvis should be promptly evacuated, lest they continue to incite pain, inflammation, and otherwise ravage the pelvis. If left to themselves, these abscesses may rupture into the posterior vaginal cul de sac, or into the rectum, or, less frequently, into the bladder. There is also the remote danger that they may rupture into the peritoneal cavity, when there is almost sure fatality resulting This accident has happened more than once, and Thomas, in his treatise, relates that it did happen once to Sir James Y Simpson, who postponed a proposed operation for evacuation one day too long There is but one favorable channel known to me whereby pus may escape spontaneously from the pelvic cavity, and that is *per vaginam* If we could be assured that nature would rid herself of the accumulation through this avenue, it would still seem to be within the province of good surgery to interfere reasonably early, in order that the dangers of septic absorption might be avoided But experience has sadly taught that this is almost the last route sought, when nature is left to her own resources The greater probabilities seem to tend in the direction of the rectum, bladder, abdominal parietes, or that the pus may burrow in almost countless directions among the intra-pelvic viscera, and that finally the patient may become exhausted through septic absorption, without its having made exit at all No, given a case of well-defined pelvic abscess, and we may not hold off our hands a single moment, after we are confirmed in our diagnosis, without infinite jeopardy to our patient, and greatly increasing the burden of our responsibilities

The method of the evacuation will be determined by the nature of the case in hand The trocar and canula, the aspirator, or the groved needle, have each served for the purpose of operating through the vagina, and may each have their place in the accomplishment of good work The principal thing to be borne in mind is that the pus cavity is to be thoroughly emptied, then thoroughly cleansed, and a good opportunity afforded for thorough drainage afterwards If either of these instruments is used, the opening should be incised, or better still, dilated to an extent which will permit the introduction of a drainage tube sufficiently large to meet the requirements of the case, after the pus is drawn off Antiseptic liquids must be thrown into the cavity through the tube, sufficiently often to keep it orderless and clean, and and for this purpose I have found a glass syringe, holding two or three ounces, the best instrument This part of the work cannot be intrusted to another, the surgeon must do it himself I lay great stress upon this dictum If the abcess cavity be large and the walls as a consequence quite thin, there is danger in the use of much force in making the injection, lest they rupture Even a very competent nurse cannot be trusted with this delicate duty No one is so familiar with the topography of the abscess and its surroundings as the operator, whose delicate touch has explored the field so many times, and he alone must perform this important, though irksome, service for the first few days, at all events Moreover, there must be no uncertainty as to the frequent cleansing of the cavity, in the most thorough manner possible, and if he does it himself, he may feel sure that it is well done

In the treatment of chronic abscesses of the pelvis, Byford reccommends the use of the curette for the removal of certain pathological formations which hang from the walls of the cavity, oftentimes, and prevent or delay recovery This would seem to be a most excellent expedient for the class of cases in which he uses it, for such abcesses are prone to recur unless radical precautions of that nature are adopted When the abscesses cannot be readily reached through the vagina, but can be easily discerned above the pelvic brim, the abdominal section affords the safest method of evacuation This may be done in accordance with the method of Mr Lawson Tait, who opens the abdominal wall, stitches the sac to the margins of the incision, and after opening and cleansing it freely, treats it with the drainage tube in the usual way

A little while ago and he would have been considered a bold surgeon, if not a rash one, who would invade the pelvic cavity with a knife in search of a pus cavity, for, it must be conceded, that there are few localities of the body where it is more hazardous to cut than this The aspirator serves to reduce the operation through the vagina, surgically speaking, to one of minor degree Not so with the operation of Tait, which must be done with all the precautions, and skilful judgment which belong to the abdominal section for any purpose The great difficulty in executing Tait's operation, seems to be found in those cases where the abscesses are small and are situated well down in the cavity of the pelvis, for in these, it is oftentimes difficult to suture the abcess sac to the peritoneal margins of the incision

The improved methods of diagnosis and treatment of the diseases of the pelvic cavity in women, constitute one of the greatest glories of medicine in the nineteenth century The benificent influences which have arisen, and which will continue to the end of time to grow out of the one operation for the relief of cystic disease of the ovary, are not within the pale of human computation, and, when we reflect that this is but a tithe of the blessings embraced in the whole field of abdominal and pelvic diseases, which have been placed within the domain of surgical cure or relief, during the period mentioned, then indeed may we truly say, that the colossal labors and achievements of the gynecological surgeon place him in the front rank among the benefactors of the race

306 Franklin street, April, 1885

A CASE OF TRAUMATIC ANEURISM OF THE AXILLARY ARTERY, LIGATION OF THE SUBCLAVIAN, SUBSEQUENT INCISION OF THE SAC, FOLLOWED BY RECOVERY, WITH REMARKS[1]

BY L S McMURTRY, A M, M D,

OF DANVILLE KY

In order to place within easy reach of the statistician a case illustrating some important points in pathology and treatment, involving operative procedures of gravity and importance, I submit the following report of a case of axillary aneurism

On the 20th day of last November M C, a robust man, accustomed to out door life on the farm, called at my office for examination and advice His age was 30 years. He possessed a good constitution and powerful muscular development. He gave the following history: Thirteen months before, he received a pistol wound, the ball entering the right shoulder in front, imbedded itself in the vicinity of the joint. The wound healed promptly, with but little constitutional disturbance. Several weeks afterward he observed "a lump" in the axillary region, which increased in size from week to week. At the date indicated—20th of November last, thirteen months after receiving the pistol wound—the tumor had reached the dimensions of a newly born child's head. The pressure upon the brachial plexus of nerves had paralyzed the arm, forearm and hand, so that this member hung powerless at the side, possessed of very limited degree of motion, and much wasted by disuse. The diagnosis, aneurism of the axillary artery, was evident on inspection, and was made absolute by the thrill under palpation, and the bruit upon auscultation. That it owed its origin to a wound of the axillary artery was evident from the history, and the scar of the pistol wound upon the skin. A thorough examination showed that the tumor had burrowed beneath the pectoral muscles after occupying the entire axilla. The walls were thin, and moved to and fro with every pulsation of the heart. The radial pulse was small in volume, and fluctuating.

---

[1] Read before the Kentucky State Medical Society June 24 1885

On the following day but one, I proceeded to ligate the subclavian in the third part of its course. The patient was anæsthetized by Dr. R. W. Dunlap, and Drs. Geo. Cowan and Fayette Dunlap assisted me during the operation. The incision was made above the clavicle, and a dissection made through the supra clavicular triangle of the neck to the first rib. It became necessary to divide the external jugular vein, after tying it. Some difficulty was experienced in finding the artery in its home on the first rib, the vessel having been drawn from its groove by the ever increasing axillary growth. The aneurism needle was passed, and a strong silk ligature applied to the vessel just at the external border of the anterior scalenus muscle. The pulsation ceased in the tumor as soon as the vessel was compressed. The wound was closed in the usual manner, and the ends of the ligature were left hanging from the wound. The radial pulse was annihilated, neither was any pulsation detected along the course of the brachial. The arm was enveloped from shoulder to fingers in cotton wool, and a flannel bandage applied.

The progress of the patient was uninterrupted by either accident or complication. A few hours after the operation the hand and arm became prematurely warm as a result of the increased activity of the superficial capillary circulation. On December 13, the 21st day after the operation, the ligature came away, the wound having promptly healed. The tumor became firm after the operation, and at the time the patient returned home—one month after the operation—was very perceptibly decreased in size. Six months after the operation on the subclavian, the patient returned to me for further treatment. The tumor remained large and elastic, and though he had in limited degree regained the use of his arm and hand, he was unable to pursue his occupation. I at once determined to incise the sac and turn out its contents. The circulation in the arm and hand was excellent, and a small radial pulse could be detected in the affected arm. There was no pulsation whatever in the tumor from the moment the ligature was applied to the subclavian. The pressure on the brachial plexus of nerves was the sole cause of the remaing trouble. The second operation was done at the patient's home in Mt. Vernon, Ky., in the presence of Drs. Brown and Lovell of that place, Dr. Hugh Reid, of Stamford, and Mr. Worthington, of Danville, a medical student. Having made an incision over the entire length of the tumor, I threw a ligature around the axillary artery on the distal side of the tumor, and incised the tumor. The cavity was filled with a soft arterial clot, which was scooped out and the cavity washed out. During this second operation I was enabled to appreciate for the first time the full extent of the tumor. It penetrated the entire depth and extent of the axilla, and had burrowed freely beneath the pectoral muscles. This wound was closed and dressed in the usual manner, with free drainage space. The pressure now being removed from the brachial plexus, the arm and hand are rapidly regaining their power, and the patient will soon resume his occupation. In the second operation it was evident that the vessel was completely closed by the first operation, and the tumor received no collateral or recurrent supply from any source. The artery above and below the tumor had become a fibrous cord.

Concerning the operation of deligation of the subclavian it seems pertinent here to record a few observations suggested by this case. The operation varies much in difficulty. When the patient is thin and the parts adjacent are normal, the operation is as easily executed as upon the cadaver. When, however, the clavicle is greatly curved, as in persons accustomed to manual labor, and the patient stout and muscular, it is *quite different*. In these latter circumstances the artery lies at the bottom of a deep cavity, constantly filled with blood from the many small vessels of necessity divided in the dissection. A very limited experience with the operation will suffice to convince one that such an operation must require time, and may easily terminate in disaster on the table. So skillful an operator as Dupuytren occupied one hour and forty minutes in the operation, and, in one case, found at the autopsy that the needle had been thrust through the artery and included one of the large nerves of the brachial plexus with one-half the artery. And again, in a case of Dr. Warren, of Boston, the air rushing into the chest during the operation demonstrated that the pleura was punctured.

The anatomical conditions surrounding the seat of operations will serve to explain the frightful mortality after ligature of the subclavian for axillary aneurism, and the frequent failure to secure complete cure. Although embodying the principles of the Hunterian operation, it is not far removed from Anel's method. Indeed when, as in the case reported, the aneurism extends above the acromial thoracic branch, the circulation through the sac is completely arrested. Dr. Wyeth's tables embrace seventy-five cases in which the subclavian was tied in the third part of its course for axillary aneurism, with a death rate of 37 per cent. Mr. Bryant records 21 cases, of which 9 recovered and 12 died. Of 48 cases occurring during our late civil war, 37 resulted fatally, a mortality of 77 per cent. It need scarcely be stated that secondary hæmorrhage is a conspicuous cause of death.

It is important to note just here that these statistics, showing such severe mortality, include both idiopathic and traumatic aneurisms. The case I have reported is an illustrative one and the type of a class, a circumscribed traumatic aneurism resulting from a wound of the external tunic of the artery. Such cases usually occupy several months in development—the one described above occupying thirteen months, and the aneurism is provided with a well defined and firm sac. The arterial tunics were weakened at a given point, but not perforated. The aneurism in these cases approaches in character the pathological form, with this very important exception, viz. The artery above and below the tumor is not involved, and is usually found to be healthy. It is this important feature which renders this class distinct from both idiopathic and diffuse traumatic aneurisms so far as prognosis and treatment are concerned. Indeed, treatment of this form of aneurism by ligature of the artery on the proximal side of the sac is attended with excellent results.

In eight cases of axillary aneurism of this character cited by Mr. Erichsen, in which the subclavian was tied, not a single fatal result occurred. In all these cases the aneurism arose from stabs or gunshot wounds, and had existed for periods varying from two weeks to four years. I will add that no other author to whose works I have had access makes a study of this class of axillary aneurisms as distinct from those originating otherwise, and the brilliant results mentioned by Mr. Erichsen in the eight cases he records gave me much encouragement in the management of the case here reported. It is an important discriminative point in the surgical treatment of axillary aneurism which it is the object of this paper to emphasize.

MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS

OLEATE OF MANGANESE.—DR. FRANKLIN H. MARTIN, of Chicago, says, in the *Medical Record* of June 27, that since manganese first received notice in this country as a menstrual stimulant, and as a remedy in functional amenorrhœa, menorrhagia, and metrorrhagia, it has been a formidable problem to the minds of therapeutists and pharmacists to get it into an acceptable shape for administration. He has therefore had an oleate of manganese prepared, to be used as follows:

Of a twenty per cent. solution of the oleate, I should recommend that one drachm be applied to the abdomen of the patient, and its absorption promoted by friction produced by vigorous rubbing of the surface with the palm of the hand or with the fingers. The rubbing should be continued until the oil has entirely disappeared by absorption. In cases where it is found impracticable to apply it to the abdomen on account of tenderness, it may be applied to the spine or the inner surfaces of the thighs.

In cases of amenorrhœa it should be applied, if possible, every night for a week preceding the expected menstrual period, or at the time the menstruation is due and until it makes its appearance. In cases of menorrhagia or metrorrhagia it can be applied in smaller quantities every night until the desired effect is produced.

I am very anxious to see the profession give this preparation a good trial, because if there is any great value in this drug, it can only become popular as a remedy in some such unobjectionable form.

The oleate was prepared as follows: A solution of sulphate of manganese was made in distilled water, and to it a solution of sodium oleate was added. On mixing these two solutions gradually and with constant stirring, a precipitate of oleate of manganese resulted. This precipitate upon heating changed to a putty like mass. This was thoroughly washed several times with warm distilled water, to remove the sodium sulphate, and the resulting putty-like mass was the pure oleate of manganese. This oleate, when dissolved in oleic acid to the required per cent., is ready for use.

THALLIN.—PROF. MARAGLIANO, at a meeting of the Italian Medical Society, held in Genoa, April 28, 1885, reported the results of his experiments made upon thallin. He observed that in apyrexia thallin exercises a slightly depressing effect upon the temperature, and that the pulse and respiration are also slightly diminished in frequency, while the intra-arterial pressure is slightly increased.

In patients in whom pyrexia is present, thallin constantly lowers the temperature, the reduction varying with the dose. Doses of about four grains cause a reduction of about one and one fifth deg. F.; doses of seven and one-half grains a reduction of from one and four-fifths deg. F. to nearly six deg. F.; doses of eleven and one half grains reduced the temperature from two and one third deg. F. to seven and one fifth F.; while doses of fifteen and one half grains cause a reduction of from three and one half deg. F. to eight and one half deg. F.

The reduction of temperature ordinarily begins in an hour after the administration of the drug and attains its maximum in two hours if the diminution is about 2.7° F., and after three or four hours if it is greater. The effect of the drug persists from one to ten hours according to the dose. The reduction of temperature is ordinarily accompanied by perspiration, more or less profuse.

The disappearance of the fever is sometimes preceded by the shivering and chill. Frequency of the pulse and of respiration diminishes proportionately to the reduction of temperature and to the dose of the drug.

Thallin does not produce vomiting nor any other gastric disturbance, and may be administered in the quantity of 110 grains in twenty-four hours without inconvenience of any kind. It is found in the urine an hour and a half after its administration, and the greater quantity of it is eliminated in the first ten hours.

Twenty hours after the administration of the drug the urine does not give the characteristic reaction with the chloride of iron. After the administration of the drug, the urine assumes a characteristic darkish green color, which sometimes is absent after small doses. Prof. Maragliano has administered thallin in divers febrile diseases, and finds the fever depending upon pulmonary phthisis to be the least resisting, while that of fibrinous pulmonitis is the most intractable. Prof. Maragliano also finds that the drug diminishes the quantity of urea and of carbonic acid eliminated in twenty-four hours in apyretic subjects, and that it causes in the apyretic, as well as in patients with elevated temperature, a dilatation in the cutaneous vessels and an increase in the elimination of heat.—*Gazzetta degli Ospitali*, May 20, 1885. *Medical News*, June 27, 1885.

LEECH SECRETION IN BLOOD FOR TRANSFUSION.—DR. JOHN B. HAYCRAFT, in an article on coagulation of the blood (*Birmingham Medical Review*, May, 1885), states that he has prepared a watery extract of the secretion of the leech by cutting off the anterior third of a leech, placing it in absolute alcohol for the night, then cuts it into small pieces and extracts with a quarter of an ounce of 0.75 per cent. salt solution. Two drops of this added to a watch-glass full of blood will cause it to remain fluid, while another portion drawn from the same animal will clot in a few minutes. If an extract of three or four leeches be injected into the veins of a dog or rabbit, little constitutional disturbance will be produced, but if a small portion of blood be withdrawn from the animal, it will refuse to coagulate. In a few hours the blood is normal, the active principle of the secretion having been eliminated from the system by the kidneys. Some ten ounces of human blood shed into a vessel containing half an ounce of a 0.75 salt solution extract of three or four leeches would remain fluid for, at any rate, half an hour. It could be injected at leisure into the veins of the patient. It must be borne in mind that a pure watery extract may not be used, for the hæmoglobin would be dissolved out, and would produce dangerous symptoms when injected. In cases of threatened thrombosis this solution might be injected into a vein, and it would certainly prevent coagulation for a time.

NAPHTHOL OINTMENT FOR ITCH.—PROF. HARDY publishes the following formula in *l'Union Medicale*: Naphthol, 10 parts; vaseline, 100 parts. The powdered naphthol is to be dissolved in half its weight of ether. This solution is to be mixed with a portion of vaseline and heated to 30° or 40° C., until the ether has been entirely evaporated, when the rest of the vaseline is to be added, and the mass carefully triturated. The homogeneous ointment thus obtained is to be kept from the access of air. It may be applied at any stage of itch, whether it is complicated with other eruptions or not. The duration of the treatment varies from ten to fifteen days.—*The Medical Press*, May 20, 1885.

MEDICINE

TREATMENT OF BILIARY COLIC.—Among the other processes for which Kussmaul's procedure of washing out the stomach has been suggested, is biliary colic, due to impacted gall stones. At a recent meeting of the Berlin Medical Society, ROSENTHAL reported two cases treated in this manner. One was that of a woman æt. 33 years, who had been six months under his care with successive attacks of biliary colic, for which all the usual measures had been resorted to, morphine alone giving her relief. He then washed out the stomach, with a view to obtaining the sedative effect to which attention had already been called by Senator. As an apparent consequence the vomiting, which had been troublesome, ceased. She returned almost daily to have the operation repeated, and on the fourteenth day she brought with her two gall stones, each about as large as a hazelnut. Since then she has had no recurrence of the symptoms. The second case was that of a woman who suffered from very severe attacks of hepatic colic, with obstinate vomiting, and after washing out the stomach for a few days, not only did the vomiting cease, but the stones were also passed. Rosenthal did not attempt to explain the *rationale* of this treatment.—*Dublin Journ. Med. Science*, June, 1885.

HÆMORRHAGES INTO THE LARGER CAVITIES IN NEW BORN CHILDREN FROM A MEDICO-LEGAL POINT OF VIEW.—Hæmorrhage into the larger cavities of new born children has not been considered to any extent by writers on legal medicine. PROFESSOR STADFELDT, of Copenhagen, being called upon to make a report in a criminal case, undertook the examination of the reports of births and autopsies at the Maternity Hospital, of Copenhagen, during the past twenty years, during which time 25,000 births took place.

In this memoir, the author considers the hæmorrhages (ecchymoses) of the lungs and pericardium in the new-born. He notes that they are frequently produced at birth, and that, as they may continue for a considerable length of time, they should be looked upon with extreme caution as indications of suffocation after birth. Hæmorrhages of the cranial cavity may sometimes be considered in legal medicine as the result of suffocation at birth, but they are principally due to traumatism during labor. The child may live perfectly well with these losses of blood, particularly when they are circumscribed on the surface of the brain, and even with considerable hæmorrhage the child may be quite well some time after birth. He cites three cases of serious effusion of blood about the kidney and in the supra-renal capsule, *without* injury to the vertebræ and without a recognition of the cause of the hæmorrhage. Retroperitoneal effusion of blood was found extending all the way from the diaphragm to the pelvis. This occurred in three cases of presentation of the pelvic extremities, with extraction by the feet, and very difficult delivery. The hæmorrhages were probably produced during delivery, either by too great tension of the lumbar tissue, by direct pressure with the thumbs, or by raising the body too far while disengaging the arms.—*Nordiskt Medicinskt Arkiv*, Bd. xvii, Hft. 1.

SURGERY

RARE FORMS OF KELOID DISEASE.—MR. JONATHAN HUTCHINSON contributes an article on this subject to the *Medical Times and Gazette*, May 23, 1885, in which he details several interesting cases, with the following conclusions:

(1) That with keloid, as with other skin diseases, we must not expect too close a conformity to the type form.

(2) That for clinical convenience we may recognize several varieties of keloid, the prognosis as to spontaneous disappearance and proneness to return after excision differing much in each.

(3) That the first and most typical form is that in which keloid begins in very small perhaps forgotten scars, and slowly spreads far beyond their limits into sound skin. In most cases the extension and duration are indefinite, and the hardness, glossiness, abruptness of outline, etc., are always well marked. The proneness to recur very quickly after excision is very great in these.

(4) That in the second group, in which keloid growth begins in the middle of large scars, such as those of burns, it is seldom so well characterized. It often does not extend beyond the scar, and often, especially in young persons, soon begins to soften again and to gradually disappear.

(5) That in a third form the keloid growth is deeper, and never produces the glossy, superficial, elevated and spurred patches which occur in the others. These cases are very slow, and show but little tendency to spontaneous disappearance. They do not develop in connection with large scars, but rather with inflammatory damage to the skin. They are less prone than the others to recur after excision.

(6) That although definite scars almost invariably precede the formation of keloid, yet that there are allied conditions which result rather from inflammation after injury than from anything which is demonstrable as cicatrix.

(7) That the cases of multiple keloid prove either that there is in some persons a remarkable tendency to the disease, or that primary patches have the power of infecting the blood and producing others.

(8) That there is little or no clinical proof of tendency on the part of keloid to pass into cancer.

REMOVAL OF A CALCULUS FROM THE VERMIFORM APPENDIX FOR THE RELIEF OF RECURRENT TYPHLITIS.—The English medical journals give us an interesting report made by MR. CHARTERS J. SYMONDS to the Clinical Society of London on May 8, 1885, of an operation which was suggested by Dr. Mahomed. The case was that of a man aged 23, who had typhoid fever a year ago. In January, 1883, he was seized during the night with pain in the right iliac region; this increased in severity, and at the end of a week he was unconscious, remaining in this state four days. The illness lasted seven weeks. During the first week he vomited everything, and his bowels were not opened for ten days. During the whole time there was great tenderness in the right iliac fossa. Soon after this, on getting about, he noticed a hard lump in the right groin, about the size of a walnut; sometimes this swelling was painless, at other times it was very tender. Since this illness he has had repeated attacks of pain in the right iliac fossa, which come on suddenly and last one or two days. The pain is relieved by poultices. At first these attacks recurred about once a month, but during the last five weeks he has had six attacks, and they have been increasing in severity. July 13 he was seized while at work with severe pain in the right iliac region, which "doubled him up." He felt sick, but did not vomit, and was obliged to leave his work. He applied poultices, with turpentine, and obtained some relief, and remained in bed till his admission to Guy's Hospital, July 16. On admission, there was to be felt in the right groin, on deep palpation, a small, hard lump, about ¾ inch by 2 inches, running parallel with Poupart's ligament. This history repeats itself until August 24, when, as everything seemed quiescent, it was decided to explore the right iliac fossa. The lump was oval in form, well defined, and only slightly tender.

It was therefore decided to cut down upon the lump to remove a calculus present, or drain a cavity, should pus be found. Chloroform was administered, and, under the carbolic spray, an incision was made as for ligature of the external iliac, and so arranged that its centre corresponded with the position of the lump. The structures in front were divided and raised out of the iliac fossa, when the lump could be plainly felt from behind, and as yet the peritoneal cavity had not been opened. A vertical incision was now made over the hard lump, and a small calculus exposed. The opening was then enlarged, and the calculus removed. The soft and purple mucous membrane of the appendix was seen and its tortuous course from the aperture could be traced upward towards the cæcum, so that there seemed no doubt of the canal having been opened. There was no channel to the cæcum, and no pus or other fluid around the calculus, nor any fæcal or unpleasant odor. The peritoneum was not opened, so far as could be determined. The calculus was oval in shape, smooth on the surface, and measured ¾ inch long and rather more than ½ inch wide. On section, it showed a laminated calcareous capsule, enclosing hardened fæcal matter.

Antiseptic dressings were used, and in fourteen days he was discharged at his own request. A month later he was again admitted, suffering from a sinus three inches long, discharging a thin yellowish fluid, and the hard swelling noticed when he was discharged. A little over two weeks later he was discharged, the sinus having closed and the man being in good health, which continued up to the time of being last heard from, eighteen months later.

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE, INCLUDING POSTAGE.
PER ANNUM, IN ADVANCE $5.00
SINGLE COPIES 10 CENTS.

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address,
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 65 RANDOLPH STREET,
CHICAGO, ILLINOIS.

SATURDAY, JULY 11, 1885.

THE ORGANIZATION OF THE INTERNATIONAL MEDICAL CONGRESS OF 1887—AND THE RECENT MEETING OF THE GENERAL COMMITTEE OF ARRANGEMENTS IN CHICAGO.

If things done in haste are liable to be repented of at leisure, we are inclined to think this liability will apply with much force to the recent acts and expressions of certain members of the profession in Philadelphia, and perhaps in one or two other cities, concerning the measures for the organization of the Ninth International Medical Congress. Our readers will find an account of the acts to which we allude in the letter of our Philadelphia correspondent in this issue of the JOURNAL, which we publish for the purpose of giving their own version of the matter, and not because we approve of either the proceedings described or of the tenor of the letter itself. A more formal and official report of the doings of the twenty-eight members of the profession in Philadelphia, aided by one from Louisville, Kentucky, can be seen in the columns of the *Medical News*, of Philadelphia, for July 4, 1885. That our friends in the Quaker City have moved with undue haste, will appear from the fact that the Committee of Arrangements in session in Chicago did not adjourn until the afternoon of the 25th of June, and the meeting alluded to in Philadelphia was held on the evening of the 29th, before there had been time for the Secretary of the Committee on Organization to prepare the revised rules and appointments for the press, and consequently before they could possibly have anything more than a partial verbal report from some members of the Committee, on which to base their action. But notwithstanding this they proceeded with all due gravity to adopt *unanimously* the following preamble and resolution:

"WHEREAS, Certain serious changes have been recently effected in the preliminary organization and rules for the International Medical Congress of 1887, it has seemed desirable for the members of the General Committee and of the officers of the Sections resident in Philadelphia to meet for consultation; and

"WHEREAS, It has appeared that these changes are inconsistent with the original plan, and detrimental to the interests of the medical profession in America, and of the International Medical Congress, therefore be it

"*Resolved*, That we, the undersigned, consider that our duty to the profession and to ourselves requires us to decline to hold any office whatsoever in connection with the said Congress as now proposed to be organized."

That the reasons given in the preamble for the course of action announced in the resolution are disingenuous, to say the least, and entirely deceptive, we shall show more fully when we have for publication the full copy of the revised rules and plan of organization as adopted by the committee during its recent session in this city. It will then be shown that the only change in the proposed "preliminary organization" of the Congress was the dropping of *one* vice President and the adding of four or five others. The only changes in the Sectional organizations were the reducing of the number to sixteen by merging three with others, and the changing of four of the chairmen, leaving twelve unchanged, and not a single rule relating to the working or modes of action of either of the general sessions or of the Sections was materially changed. Where, then, are the alleged changes so "inconsistent with the original plan" as to be "detrimental to the interests of the medical profession in America"?

Do they consist in the simple fact that the present Committee on Organization, instead of ostentatiously making its own committee officers *the officers of the Congress*, simply adopted the ordinary organization of a Committee of Arrangements to make suitable preparations *for a Congress?* Or, after all, are we to look for the real reasons prompting the resolution to the fact stated by the editor of the *News*, when he says "the management of the matter (the preparation of the Congress) has passed into the hands of a very different set of men from those who had charge of it at the outset?" Or, as still more pointedly indicated in the letter of our Philadelphia correspondent when he says: "There is no dissent to the determination in this city (Philadelphia) that what has taken place at New Orleans and at Chicago to the damage of the Congress shall not be sanctioned, even in appearance, or permitted to stand as the work of Philadelphia, at all, notwithstanding the fact that a Philadelphian is charged with having had a great deal to do with it." Is it possible that it is just the retention of this particular Philadelphian, as simply secretary of the Committee of Arrangements, that has so hastily moved the twenty-eight grave, learned and justly eminent members of the profession in Philadelphia to wash their hands of all further responsibility in regard to the International Congress? When the full proceedings of the Committee of Arrangements, during the session in Chicago, come to be published in a connected and correct form, and it is seen that such proceedings have made no essential change in the general plan of organization of the Congress, or in the rules adopted for its government, that of the four chairmen of sections previously appointed in Philadelphia three were retained in their places, and the fourth was disturbed only by transferring him to the vice presidency of the section with which his own section had been united, and instead of confining the membership of the Congress to the membership of the American Medical Association, as is alleged, nearly or quite one half of the sixteen chairmen of sections re-appointed are not members of that organization, the medical world will not fail to see that the only foundation for the hasty movement of our honored confreres in Philadelphia *is* the simple change in the personel of the Committee of Arrangements and the practical denial of the assumption that the "various eminent specialists" of three or four cities and the medical profession of the United States are synonymous.

And if those who have been in such haste to condemn the action of the National Association and the present Committee of Arrangements for the Congress, do not wish to occupy the unenviable position before the world of men determined to rule or ruin, they will take much more time to think before they make their next move.

NUTRITIVE DRESSING OF LARGE GRANULATING SURFACES.

In the *Therapeutic Gazette*, May, 1885, DR. WM. BARTON HOPKINS, of Philadelphia, calls attention to a method of dressing large granulating surfaces which seems to offer considerable advantages in two ways: as a method of giving food to patients who, for obvious reasons, cannot take sufficient nutriment into the stomach, and as a very suitable method of dressing granulating surfaces. As illustrative of this method of "Nutritive dressing," Dr. Hopkins reports the case of a man, 36 years of age, who, while coupling cars, had his right elbow caught between the buffers, which nipped the limb, squeezing the forearm and elbow through a long tear in the integument.

There was no bone or joint injury, and no tissue was lost, but the greater part of the integument of the forearm and elbow had been stripped off, and lay curled up on the anterior aspect of the limb. "After being carefully washed with carbolated water, the wound, which extended from the lower part of the forearm to a point about four inches above the elbow, was loosely approximated, and dressed with carbolized gauze, dusted with iodoform. Two days later, owing to the high grade of inflammation which followed, this dressing was discontinued, and irrigation with carbolated water (one part to forty) used instead, and aconite was given internally. General sloughing of the entire flap of integument, and also of the muscles of the arm and forearm, followed. The elbow joint narrowly escaped involvement, its whole contour becoming plainly visible, covered only by capsular ligament, which latter, however, fortunately remained intact. Owing to the perfect drainage which could be obtained, and free irrigation, which was persistently continued for two weeks, the great mass of sloughing, gangrenous tissue remained entirely free from odor, and, notwithstanding the patient grew exceedingly weak and became rapidly emaciated, his temperature seldom exceeded 100°, and he showed no symptoms of sepsis. At the end of three weeks the sloughs had mostly come away, and healthy granulations began to fill up the depressions and even off the surface of the large ulcer remaining. Five weeks after the accident improvement had come to a standstill. The excessive drain from a suppurating surface, which at this time extended over an area of one hundred and five square inches, began to tax too severely his already enfeebled nutritive powers. He had complete anorexia, became nervous and irritable, had night-sweats, and his temperature became elevated, reaching 102° and 102½°. He had beginning hectic. Cicatrization had been going on for some time, but was feeble and tardy, while the discharge from the ulcer was free and comparatively healthy."

Dr. Hopkins then assumed that a granulating surface, of sufficient size, might be used as a medium by which to administer nutritive material, "and that certain such materials could be applied to it which would not interfere with the processes of cicatrization." For this purpose he used an emulsion of cod-liver oil, to an ounce of which five grains each of pepsin and pancreatic were added. The granulating surface was therefore dressed once a day with lint soaked in this preparation, and with the very best effects. The general and local conditions improved very soon, and Dr. Hopkins thinks that the improvement can be fairly attributed to the change in the dressing, since no change was made in the general treatment while the experiment was in progress. The appetite improved rapidly, "food was taken in much larger quantities, was eaten with relish, and was properly digested."

"The effects upon the ulcer were clearly secondary to those upon the general condition, as no changes were noticed in it until after marked improvement in the latter had occurred. Then it began to cicatrize with rather remarkable rapidity, in fourteen days having become reduced in area to seventy-seven square inches. The patient's face had lost its sunken, drawn expression, and he was now able for the first time to be out of bed. A number of skin grafts were applied at this time, and the dressing therefore discontinued, lest it should interfere with the process. Ten days later, several of the grafts having been found to have taken, the nutritive dressing was reapplied, and continued for two weeks longer. The indications for its use, however, seemed to have ceased, and no particular effect was noticed, except that healing progressed favorably with it, and that it was otherwise unobjectionable. The ulcer was afterwards strapped until the patient was transferred to the out-department, about four months after the accident. Three small ulcers remained, the dimensions of which were, respectively, about two by two and one half inches, one by one and one half, and one by one. Owing to loss of structure and cicatricial contraction, there was little movement at the elbow, but the hand was quite useful."

With Dr. Hopkins we would recommend that surgeons take every opportunity to test this plan, which certainly seems an admirable one in cases of exhaustion after extensive loss of superficial tissue from wounds, burns, scalds or whatever cause. It is his opinion that it would be most frequently applicable after burns, as the mortality after such injuries is very often due to the inability of the digestive system to furnish nutritive matter sufficient to compensate for the waste attendant on prolonged excessive suppuration.

THE SANITARY ASPECTS OF THE FOURTH OF JULY.

During the past ten years more than ten thousand people have had reason to regret the manner in which the fourth of July is usually celebrated in America. We might say that more than ten thousand have regretted it, but it is best to be on the safe side, and certainly ten thousand cases are sufficient upon which to base definite conclusions. We do not refer to the patriotic and uninjured citizen who regrets having spent too much money in exuberant rejoicing, doubtless there are many of this class. But we cannot think that the present mode of celebrating the day is looked upon with entire favor by those who have received injuries of various kinds from the many noise-producing agents which are inseparably connected with a celebration in the infantile American mind. These injuries are of two classes. First, direct bodily injuries, such as are produced by the explosion of gunpowder, fireworks, and that inoffensive-appearing though tetanus-provoking toy pistol, and secondly, indirect injuries to extremely nervous and sick people, produced by the noises emanating from the various instruments which delight the hearts of the little ones. It may be said also that various injuries are caused both directly and indirectly by an agent, in no little demand among adults for purposes of celebration, which, while quite noiseless in itself, creates an appetite for noises in those who use it too freely.

The various injuries reported on July 5 and 6 as having arisen from accidents on the fourth, due directly and indirectly to exuberant patriotism, footed up no less than two hundred and nine, not including fires, and it is quite probable that there were many not reported by the papers. It is true that but a small portion of the injuries were serious, but it is not the less true that they were avoidable. Some of them, however, were of a very serious nature. Such things as rockets, for example, are capable of causing injuries of a very serious or fatal nature. Here in Chicago, during the celebration of the fourth, one person received a fracture of the malar bone, and extensive injury to the face from a rocket, and another was severely wounded on the head. A year ago a woman was killed by a rocket penetrating the eye, and two years ago a man was killed by one. Numerous cases of tetanus have been caused by injuries from toy pistols, severe and fatal injuries have been caused by the premature firing of toy and other cannon. Injuries have also been received from fire-crackers and other varieties of fire-works. Besides the dangers to health, limb and life, the injuries that have been caused to property within, say, the past ten years are almost countless, houses have been burned, horses attached to vehicles have been frightened and have destroyed the vehicles, and in many cases have injured the occupants.

We have already referred to the fact that the noise attendant upon such demonstrations very seriously affects the welfare of sick persons When a person is in the delirium of typhoid fever, for example, the explosion of a large firecracker may make all the difference of life or death, and the same may be true in other cases One does not need a medical education to know that noise is a very important factor in disease or illness, for everyone knows how often perfect quiet is enjoined upon the members of a family in which there is a case of illness Everyone knows that the rattling of a heavy vehicle over the stones of a street will sometimes seriously compromise the condition of an ill person, but this is by no means so serious as the sudden shock produced by an explosion It is entirely possible that a person suffering from severe heart lesion might be killed by such a sudden shock

In view of these facts, is it not right that authorities should prohibit noisy demonstrations within the limits of a city? If such demonstrations were capable of conferring any good whatever upon the community at large, there might be some question as to the expediency of such prohibition But they confer no good So long as public sentiment is in favor of having certain legal holidays, it is perfectly proper that there should be such, and when the observance of such days is kept within reasonable bounds there can be no objection to them But demonstrations which are of no positive good to any, and which entail a positive injury on some, should be absolutely prohibited They have been prohibited for more than a year in New York city, and to some extent also in Philadelphia It is not simply a question of expediency, it is a question directly connected with the public health, and health officers should direct the attention of the proper authorities to it It is not only the privilege of the health authorities to call attention to these matters, but as protectors and preservers of the health of the people it is their duty, and it is equally the duty of the police authorities to prohibit whatever may injure health, limb, life or property It it scarcely necessary to say that these remarks concerning the midsummer national holiday are equally applicable to other days celebrated on "the American plan"

THE OWNERSHIP OF A PRESCRIPTION

The following paragraph has appeared in one journal or another for several weeks

"The Supreme Courts of New York and Massachusetts have settled the matter as to who owns a medical prescription The substance of the decisions is, that the physician, in prescribing, gives the patient a written order for drugs, and their delivery terminates the operation The druggist may, on his own responsibility, renew the drugs, for he is a merchant, and has a right to sell drugs in any shape He is not bound to give a copy of the prescription, nor even to keep it"

In the first place, it would be of interest to know how this decision settles the matter of ownership There is nothing in it to indicate whether the physician, druggist or patient, or all three own it If the delivery of the drugs on the written order of the physician *terminates* the transaction, how is it possible that the druggist may renew the prescription save on a written order for renewal? If he has that right, the question of ownership lies between the druggist and the patient, and the transaction has not terminated, but remains in force so long as the druggist and patient live If a druggist may, on his own responsibility, renew one prescription, he may renew any, he may renew an order for a pint of sherry three times a day, or for five one-grain doses of opium as often as the patient calls for it

The statement that the druggist is a merchant and "has a right to sell drugs in any shape" is true only under certain conditions, there are certain drugs the sale of which, save on a physician's prescription, is illegal The law gives the physician the sole right to say whether the druggist may sell these drugs in any case, and hence the presumption of ownership in prescriptions calling for these drugs is certainly in favor of the physician And there is no reason whatever for holding that the law should make a distinction, as to ownership, between one prescription and another—nor for holding that it is illegal for the druggist to sell certain poisons, in the first instance, except on the written order, while he may *renew* them as often as called for without a second written order For, if the physician alone has the right—the legal right—to say whether a certain person may or may not take certain medicines in the first instance, he has the same right to say whether he may continue to take them after the amount first ordered has been taken, and it is a manifest absurdity to hold that, because certain drugs are ordered at one time they would certainly, or even probably, be ordered one month afterwards And there seems to be good reason for holding that a druggist who renews a prescription calling for the authority of a physician, save on those drugs which can be sold only on prescription, is indictable under the Poisons Act (some form of which is in force in almost every State), The necessary inference, therefore, is that the Courts have drawn no conclusions from false premises, and have left us as much in the dark as before

SOCIETY PROCEEDINGS.

CHICAGO GYNÆCOLOGICAL SOCIETY.

Stated Meeting Friday, May 29, 1885.

THE PRESIDENT, H. P. MERRIMAN, M. D.,
IN THE CHAIR.

An inaugural thesis, entitled

THE NORMAL POSITION OF THE UTERUS AND ITS RELATION TO THE OTHER PELVIC ORGANS,

was presented by FRANKLIN H. MARTIN, M. D., (Chicago Medical College, 1880,) and read by the Secretary, Dr. Edward Warren Sawyer.

The extreme theories of Schultze, Fritsch and Savage were opposed for the following reasons:

1. In extreme anteversion, the wave impulse would strike the posterior broad surface of the body of the uterus, and drive it down upon the bladder and anterior wall of the vagina, while, on the other hand (the perpendicular theory of Savage), the anterior broad surface of the body would receive the impulse to an equal disadvantage, displacing the uterus backward and driving the cervix downward, while if the uterus occupied the position between these two extremes, the narrow crest of the fundus would receive the impulse in the line of the axis of the uterus and all the force would become equally distributed through all of its supports. Here, too, the organ would not so directly receive the whole impulse, as it would be equally dispersed upon its sides and the posterior ligaments and anterior supports, and its lateral attachments would receive, to an equal extent, their portion of the impulse.

2. The manner in which the bladder collapses, to our mind, precludes the possibility, or at least the probability, of the uterus occupying normally the position of extreme anteversion. The bladder, when collapsed, or when empty, is a triangular shaped body, not flat like a plate. The base corresponding to its peritoneal surface, the apex corresponding to the urethra. The posterior or inferior surface corresponds to the anterior wall of the vagina, to which it is intimately attached, the anterior wall corresponds to the symphysis, to which it is loosely attached. It is readily seen, then, that the bladder distends only in the direction of the peritoneum, or its one free surface. According to the extreme anteversion theorists, the free surface of the bladder and the uterus are in apposition. If such be the case, the uterus changes its position constantly, as the bladder normally relaxes and contracts,—this seems to us very improbable. We believe that this space is usually filled with the light coils of the small intestines.

3. The broad ligaments receive their external attachments at a point about equidistant from the centre of the sacrum posteriorily, and the pubic junction anteriorly, in such a way as to divide the plane of the brim of the true pelvis into about equal halves. If the body of the uterus occupies a position in the centre of the pelvis on a direct line with the ordinary attachments of these ligaments, which it is at least rational to believe is the case, it occupies a position between the perpendicular of Savage and the extreme anteversion of Fritsch.

4. With extreme anteversion, the cervix, with the fundus occupying a position behind the symphysis would necessarily have to occupy a position far back in the pelvis, within three fourths of an inch of the sacrum—with a normal confirmation of the parts, this is impossible without interfering with the rectum.

5. If we take the measurements of Foster and Litzmann into consideration, we can at once demonstrate the impracticability of the position given by Savage,—*i. e.*, the perpendicular. The cervix occupies a position normally at a distance of one and one-half inches from the sacrum, the rectum intervening. It is impossible for the uterus to assume anything like a perpendicular with the cervix in this position, on account of the anterior curve of the sacrum above, which necessitates an anterior version from the perpendicular of at least fifteen degrees.

PROFESSOR W. W. JAGGARD was pleased with the selection of the topic, and its mode of treatment, but did not agree with Dr. Martin in all his conclusions. Bandl had made a correct statement of the diversity of opinion on this subject, in his essay on "The Normal Position and the Normal Relationship of the Uterus, and the Pathologico Anatomical Causes of the Symptom of Anteflexion" *(Archiv für Gynäkologie, Band XXVI, Heft 3, 1884)*, read before the Gynæcological Section of the Versammlung deutscher Naturforscher und Ærtze in Frieburg, September, 1883. "In the course of time, almost every position of the uterus, with the exception of prolapse, has been accepted as the normal by different anatomists and gynæcologists, and particularly by the more eminent ones."

Kolliker (1882), from a series of examinations of the cadavers of girls, from ten to eighteen years old, has concluded that the uterus is not bent, nor curved upon itself, but is straight, and that its long axis corresponds with the principal axis of the small pelvis. Its position is variable within certain limits, depending upon the condition of the bladder and rectum. This opinion coincides closely with judgments of Kohlrausch (1854), Le Gendre, (1868), Freund, Carl Braun, (1857), J. Marion Sims, (1855), Langer, (1881). Professor Paul F. Mundé, in his recent excellent work on "Minor Surgical Gynecology," favors these views to the extent that he says, "with the woman in the recumbent position, the examining finger is unable to touch the body of the uterus before or behind the cervix, if the uterus is normally situated." Bandl, in the paper, to which allusion was made, confirms Kolliker's view. The evidence he furnishes is of a high order. His methods of investigation were: 1. The attentive examination of living women. 2. Examination and observation before and during the operation of laparotomy. 3. The bimanual examination of the organ in cadavers, before and after abdominal section. 4. The comparative anatomical examination of many uteri.

DR. PHILIP ADOLPHUS thought, with Emmet, that "there is no common standard by which to determine the proper position for the uterus in all women, but that in each individual there is a point, or plane, in the pelvis which the uterus should occupy when she is in a state of health and not pregnant." He referred in detail to Emmet's "normal or health line," and to the pathological character of displacements above or below this line. It was a matter of relative insignificance whether or no the long axis of the uterus coincided with any particular pelvic axis. In the concrete case, the sensations of the individual would indicate a normal or abnormal position.

PROFESSOR DANIEL T NELSON said the uterus was fixed in a position of unstable equilibrium by the annular and other ligaments. It could move to a certain degree in every direction, and return to its original, normal position. Displacement above or below Emmet's "health line" was productive of symptoms, if the uterus remained fixed in such a position, as was usually the case when violence caused the dislocation. Departure from the principal axis of the pelvis was a comparatively insignificant moment, viewed absolutely. The vagina and perineum are not primary supports of the uterus, and only assume this function, when, as the result of the relaxation of the proper uterine supports, the organ is displaced downwards. This secondary character of the vaginal and perineal support was capable of demonstration by the examination of a woman in the erect attitude. Upon coughing or sneezing the uterus would descend and receive support from vagina and perineum, only to regain its original position when the excitant was removed. This remark applied exclusively to normal organs in normal position. He wished to emphasize the statement that the rectum was not the normal receptacle for the faeces. Anatomy and physiology teach that in the normal condition the gut is empty up to the sigmoid flexure. The sigmoid flexure is a sort of valve to retain fæces.

He gave the history of a case of retention of urine in a puerperal woman, in which the bladder was displaced towards the right. He would like to ask the Fellows if this displacement, observed in a single case, corresponded with their observations.

PROFESSOR CHARLES WARRINGTON EARLE related the history of a case of retention of urine in a puerperal woman, the bladder displacing the uterus upwards and backwards. Upon the introduction of a catheter, four quarts of urine were evacuated and pelvic viscera returned to their normal relations.

DR EDWARD WARREN SAWYER said the uterus had great latitude of movement antero posteriorly and laterally, elevation above or depression below the normal plane, even to a slight degree, was productive of pain. The introduction of a pessary, which merely elevated the uterus when partially prolapsed, without altering flexion, was sufficient in many cases to afford complete relief.

While a student in the Medical Department of Harvard University, he had taken plaster casts of the vagina. Such casts were of uniform shape, while they differed in size. They were curved, convex posteriorly, concave anteriorly. They were never shaped like an S. The curve did not correspond to that of the anterior surface of the sacrum, but to the floor of the pelvis.

DR H T BYFORD thought Dr Sawyer's experiments were faulty. When plaster of Paris was injected into the vagina, with the rectum empty, the vagina would act exactly as the rectum would under similar conditions.

THE PRESIDENT complimented the author of the paper on the careful, judicial mode of treatment of his difficult subject. He agreed with Dr Adolphus, Dr Nelson, Dr Sawyer, that elevation above or depression below a certain horizontal plane was of greater importance, in the production of symptoms, than deviation from the principal pelvic axis antero posteriorly or laterally.

The normal position of the uterus was as variable as the quantity of blood lost at a menstruation. Every woman was a law unto herself. He referred in detail to Robert Barnes's theory of uterine support, and concluded by recommending Bozeman's plan of columning the vagina, when a hard rubber pessary could not be borne.

Professor Christian Fenger, M D (Copenhagen, 1867), and Franklin H Martin, M D (Chicago Medical College, 1880), were then elected Fellows of the Society.

KENTUCKY STATE MEDICAL SOCIETY

(Continued from page 24.)

THURSDAY, JUNE 25—SECOND DAY

AFTERNOON SESSION

DR DUDLEY S REYNOLDS read a

REPORT ON OPHTHALMOLOGY

The paper dealt more particularly with the errors and sources of error in operations for strabismus. The reader discussed the necessities for knowing the cause of the squint, and reviewed the opinions of different authors on this subject, he has long been impressed with the difficulty of correcting this trouble. It is important to correct it as soon as possible. In his opinion the patient should not be secluded from the light after operation, but should be treated with mild mydriatics. All eyes tending to squint should be operated on immediately.

DR WILLIAM CHEATHAM, of Louisville, said that his rule was not to operate until the child was old enough to wear glasses, which usually is not before the seventh year.

DR E WILLIAMS, of Cincinnati, thought that we seldom get good results as regards binocular vision, and that there is something back of anomalies of refraction in squint.

DR WILLIAM CHEATHAM made a

REPORT ON OTOLOGY,

in which the principal subject of discussion was catarrh of the middle ear, earache. This, he thought, was a subject which could not be over written. Treatment has become more and more simple of late years. He reported a number of cases, and described his treatment by means of the fountain syringe. This was usually preceded by a purge of calomel and soda. He thought it very important that treatment should be begun early. He recommended leeches for local depletion, but the meatus should be plugged with cotton to prevent the leech from getting into the ear When fluid is present it should be evacuated Hot water is also valuable in the treatment, as is the dry treatment by zinc or boracic acid He uttered a warning against poultices, they should not be used until everything else has been tried

Dr J A Larrabee of Louisville, made the

REPORT ON DISEASES OF CHILDREN

The good of the nation demands the care of the children He considered fully the harm done in schools by over crowding and over-work, and also that done in factories and mills where children are made to do the work of adults In pediatrics we must learn the language of disease This, like other languages, must be learned while young Pediatrics must be commenced as a specialty He considered infant feeding, and dwelt upon its importance Cholera infantum, syphilis, scrofula, measles, scarlet fever, whooping cough and chicken pox were discussed He thought that high temperature often simulating peritonitis is due to some retained matter in the intestinal canal Purges and emetics, he thought, were giving place too much to chloral and the bromides for headaches In many of these cases a dose of castor oil was all that was necessary In every case of fever in children the tonsils should be examined, and the cause of the trouble will often be found there He had followed with much interest the study of micro-organism in the etiology of diphtheria He advocated the use of hypodermic injections of morphia and atropia in children, especially in cholera infantum In conclusion, he would advise more instruction and less medicine in childhood, good food, good sense, and an occasional dose of castor oil

Dr Webb, of Stamford, favored hypodermic injections of morphia in cholera infantum

Dr Howard, of Shelbyville, thought Dr Larrabee should differentiate between children in the country and those in the city

Dr Preston B Scott, of Louisville, thought as many children were overfed as underfed He looked upon morphia or opium in childhood as dangerous remedies

Dr E Williams wanted it understood that he was on the side of the children He was in favor of regular meals at regular times, and nothing in between times

Dr Wm Baily, of Louisville, in referring to the terms starvation and overfeeding, said there was no better way to starve than to overfeed In overfeeding we have impaired digestion He thought opium the remedy needed in anemia of the brain

Dr Pinckney Thompson, thought that impure air, bad food and mean drugs caused great mortality in the city When we have healthy mothers we have healthy children Healthy mother's milk is the best food Cow's milk is better than that of a sickly high strung woman You can't get good milk in the city unless you get it from a country cousin He has given morphia 1-30—1-20 grain, atropia 1-200 grain in children six years of age Has given ⅛ grain morphia and 1-100 grain atropia to child one year old for cholera infantum, and never had occasion to regret it

Dr Larrabee was surprised that the gentlemen did not understand the inverse susceptibility of children to atropia There is no dosage to the man who understands medicine, he gives only for its effect He thought it a golden era when the hypodermic syringe was introduced

Dr J Morrison Ray, of Louisville, read a paper on

WOUND OF THE ANTERIOR SEGMENT OF THE EYEBALL

Injuries of the cornea, iris and ciliary body are frequent, for this reason they demand the consideration of the general practitioner The promptness of action required in many cases causes them to be classed as surgical emergencies A history of the discovery of the preventive treatment of sympathetic inflammation was given It was maintained that the question most pertinent at the present time was not, would enucleation forestall sympathetic trouble This was thoroughly established But the question most pertinent is, How much injury can an eye sustain and still be retained with a minimum of danger to its fellow from sympathy?

Some, whose conservatism had given them bitter experience of sympathetic ophthalmia, may advise enucleation of an eye that by judicious treatment might eventually become useful A prominent British ophthalmologist was quoted as saying that he was satisfied that many eyes were sacrificed that by careful attention would have become satisfactory organs of vision Histories of cases of extensive injuries to the anterior hemisphere of the eye were given, the recoveries, under proper treatment, being most satisfactory In conclusion, it was urged that wise conservatism be practised in dealing with these cases The fact must never be forgotten, that if much inflammatory reaction followed, if the ciliary region is involved in a firm cicatrix, the iris and ciliary body to a state of chronic excitement, with an abiding tenderness in the region, the eye should be carefully watched and the patient warned of the dangers which menace the fellow-eye from sympathy The author agreed entirely with Swanzy, who says Never remove an injured eye "unless it contains a foreign body which could not be removed For inflammation may not come on, and thus the eye be saved"

EVENING SESSION

Dr J B Marvin, of Louisville, read a paper on

PRIMARY LATERAL SPINAL SCLEROSIS

This is a rare disease, and has only recently been recognized as a distinct affection, principally through the writings of Erb, 1875, Charcot, 1876, and Seguin, 1873 The disease is one of gradual onset, and of adult life The real cause is unknown It seems to attack robust, muscular persons, is attended with loss of power in the extremities, with muscular rigidity, spasmodic twitchings, tremors, and increase of the tendon reflexes The positive and negative symptoms show most clearly that the lesion is limited to the crossed pyramidal tract But few autopsies have been made

To Dreshfield and Morgan has been attributed the honor of first proving by dissection the connection of the symptoms of spasmodic paralysis with lateral sclerosis in a primary uncomplicated case of the disease

The diagnosis is often easy, though it may be extremely difficult It is especially liable to be confounded with transverse myelitis According to Charcot, the lesion in primary sclerosis is wedge-shaped, extends exteriorly to the pia mater, and interiorly as far as the posterior cornua This, he claims, distinguishes it from secondary lateral sclerosis The progress of the disease is probably the most chronic of all forms of spinal trouble Uncomplicated cases do not shorten life Prognosis is not favorable to recovery Authors have reported cases as having recovered, but when an anatomical lesion has occurred I cannot see how recovery is possible

Treatment Arsenic and the bromides, nitrate of silver, galvanism, water cure antiseptics, iodides, etc The reader closed with the report of an interesting case, and gave a number of microscopic and photographic views illustrated by the magic lantern

DR WILLIAM CHEATHAM read a paper on

NEURO-RETINITIS ALBUMINURICA

Having seen ten cases of this affection during his practice as an ophthalmic surgeon, he thought it well to report them After making the detailed report, he showed a number of microscopical and photographic specimens by the magic lantern He then spoke of the value of the ophthalmoscope in the diagnosis of renal disease, and showed diagrams of the normal and diseased fundus oculi In five of the cases reported, no renal trouble had been suspected by the family physician The connecting link between the trouble of the kidney and that of the retina has not been satisfactorily shown Some have ascribed it to urea others to albumen and cases are reported which support both these views The best prognosis can be made in those cases which follow the exanthematica, typhoid, and occur in the advanced stages of pregnancy No special treatment of the eye is indicated except rest and the avoidance of bright light

DR ORPHEUS EVARTS, of the Cincinnati Sanitarium, read a paper on

OVER WORK AS RELATED TO INSANITY

The alarming and much talked of increase of insanity in this country, is ascribed by common consent to the restless industry, enterprise and push of the American From 1870 to 1876, Dr Evarts had admitted 1204 men, supposed to be insane, to the hospital No distinction was made except as to chronicity and idiocy, which precluded admission Of the 1204 but 17 had received even a nominal academic education, and only 25 were properly professional men, 12 being lawyers, 9 physicians and 4 clergymen Of the remainder who lived by their wits, there were 1 actor, 1 author, 1 editor, 1 musician, 3 insurance agents and 1 gambler, making a total of 38 out of the 1,204 who might be said to live by brain work Of the 12 lawyers only 3 were of more than ordinary capability or reputation in the profession, and one of these had reached senility, the other two had been intemperate in the use of alcohol and tobacco Of those classified as physicians not one had been a student or thinker Inherited defects of organism, night riding and exposure, whiskey, opium, and tobacco excesses, poverty and ignorance, and neglect of personal hygiene would figure conspicuously in their clinical history Of the four preachers one was a "crank," one epileptic, and the other two were half starved and otherwise devitalized victims of the untoward circumstances of their birth

"Recollections of more than 4,000 insane persons that have come under my observation within ten years of continuous service as superintendent of a public hospital for the insane, aided by a review of the statistics, do not change the conclusions to be drawn from these selected examples nor do other observations, more fully and studiously made, of the inmates of a private asylum for the insane, extending over a period of six years, though a much larger proportion of such inmates are persons of more than the ordinary intelligence and acquirements of the general population of public hospitals for the insane The same general features of causation are seen through all disguises, viz an inherited potentiality, developed by a variety of mixed influences emanating chiefly from conditions of deprivation or excess I conclude, therefore, that while over-work, in the general acceptation of the term, is a prominent factor in the causation of diseases, some of which are manifested by mental disorders, over-work in the performance of mental functions is not a frequent or sole cause of such diseases"

(*To be concluded*)

FOREIGN CORRESPONDENCE

LETTER FROM PARIS

(FROM OUR OWN CORRESPONDENT)

Pyridine—Its Chemical History—Method of Administration—Soporific Effects—Its Value in Asthma

Pyridine is the name given to a new substance introduced by Prof Germain Sée in the treatment of asthma Wishing to ascertain the rationale of the treatment of asthma by the smoking of medicated cigarettes and the veritable physiological agent to which the cure is attributable, Prof See, in conjunction with Dr Bochefontaine, discovered by chemical analysis that the therapeutic action of the cigarettes was due to a uniform base formed by the combustion of certain plants and of certain alkaloids This substance is pyridine, which is developed during the distillation of dry organic matters in the products of bony tissues (animal oil of Dippel), coal tar, and certain important alkaloids, such as cinchonine, quinine and morphine, it is also found in the products condensed from the fumes of tobacco, and, finally, it is found in nicotine itself, in which a pyridic nucleus was discovered in 1880 by Cahours and Etard Whatever its origin or mode of preparation pyridine is a colorless liquid, which evaporates in the air at an ordinary temperature, giving out a strong penetrating odor It is mixible in water in all proportions, and forms with mineral acids very soluble salts, but which are easily disintegrated

The best mode of introducing pyridine into the organism is neither by subcutaneous injections of its salts, on account of their rapid disintegration, nor by the inhalation of pure pyridine, which provokes nervous troubles, it is by aspiration that it acts best. 4 or 5 grammes are poured on to a plate, which is placed in a closed room containing about 25 cubic metres of air. The patient, occupying a corner of the room, thus breathes the air mixed with the pyridic vapors, each sitting should last from twenty to thirty minutes, and be repeated three times a day. Absorption is immediate and the pyridine can be detected in the urine almost immediately after the commencement of an inhalation. The patients at once experience a marked diminution of the oppression so common to asthmatics, the breathing becomes easier, and they have no longer the intense longing for fresh air, results due to the fact that the sensibility of the pneumogastric nerve and the excitability of the medulla oblongata are considerably diminished.

The action of the heart during this time becomes normal. After each sitting, the patients feel an irresistible tendency to sleep, which becomes neither complete nor profound, and is not accompanied by insensibility. This effect of pyridine completely distinguishes it from the sleep produced by chloroform, ether, and the other anæsthetics in common use. While the sleep lasts, sensations, followed by reflex phenomena are provoked with difficulty, although contractile energy is maintained. The administration of pyridine is not followed by paralysis, convulsions, or tremors, but the muscles are relaxed, and temporarily lose their tonicity, in consequence of the lessened sensibility of the medulla oblongata and spinal cord. This modification of reflex sensibility is peculiar to pyridine, distinguishing it from the substances from which it is extracted, as, for example, nicotine and atropine.

The 14 cases in which Professor See tried the pyridine were 3 women and 11 men, with ages ranging from 30 to 68 years, 9 of whom were pure asthmatics, and 5 subjects of heart disease, they were all more or less relieved. One patient who had suffered from asthma from childhood, and another who had had the disease for 12 years were greatly relieved by the treatment with pyridine, but it had to be discontinued in consequence of troublesome attacks of vertigo and nausea. The patients who presented cardiac and renal complications declared that respiration became much easier by the inhalations. Professor Sée therefore concludes that pyridine is preferable to hypodermic injections of morphia, its action being less dangerous than that of the latter, and it does not affect the general health. Its use, however, is indicated only for the relief of the fits of asthma, but for the cure of the affection, Professor Sée places the greatest reliance on iodine and its preparations, for which he considers them as almost specific remedies, whether the asthma be of nervous or cardiac origin, while pyridine is the most useful adjuvant.

The following are the conclusions of the work addressed by Professor Sée to the Academy of Sciences on the treatment of asthma. 1. Whatever be the form of the asthma, whether it be primitive or of gouty or other origin, "ioduration" constitutes the veritable curative method. When iodism supervenes, pyridine should be employed, and it may be considered the most efficacious remedy against the attacks. In other words, pyridine is the best palliative, while iodine is the efficacious remedy. 2. Pyridine is superior to injections of morphia, its action is more durable and more inoffensive. 3. In simple nervo-pulmonary asthma the attacks may be completely arrested. For the severe form complicated with permanent pulmonary lesions, the treatment should be continued for eight or ten days after cessation of the attacks, in order to consolidate the amelioration obtained. In cases of cardiac asthma, with or without renal or dropsical complications, pyridine may still render the greatest service by combating the most persistent, the most distressing phenomena which torment cardiac patients, that is, oppression, whether continued or whether paroxysmal. A. B.

DOMESTIC CORRESPONDENCE

LETTER FROM PHILADELPHIA

(FROM OUR OWN CORRESPONDENT.)

The Feeling and Action of the Profession in Regard to the Proposed International Medical Congress, Wholesale Withdrawal from Participation in it—More Money for the University of Pennsylvania—The Women's Medical College, Facilities for Study, Arterio-Venous Aneurism—What the Women Write their Theses About.

The matter which at this time is most in the mind of the medical profession in this city is the prospect in regard to the proposed meeting of the International Medical Congress, in Washington, in 1887. It has been feared that the stirring up of sectional jealousy which took place in New Orleans, at the instigation of certain men who thought better of themselves than the committee on organization thought of them, might lead to action on the part of the enlarged committee which would make it impossible for a number of the original committee, and of their appointees, to retain their positions without a sacrifice of their self respect. This apprehension has been justified, it would appear, by the proceedings of the enlarged committee in Chicago, when such changes were made in the *personel* of the committee of organization and its appointees, and such a disposition was shown to put into prominent positions some of the men who are here thought to have been willing to risk the ruin of the whole plan for the Congress, in the hope that out of the troubled waters they might fish something to their own advantage, that there has been a feeling of strong indignation here, and the conviction has deepened that there is no hope of a successful or creditable meeting of the Congress while the management is in the hands of such men, and is subject to such influences, as were paramount at the meeting in Chicago.

As an evidence of this conviction, I may state of the symptoms of spasmodic paralysis with lateral sclerosis in a primary uncomplicated case of the disease.

The diagnosis is often easy, though it may be extremely difficult. It is especially liable to be confounded with transverse myelitis. According to Charcot, the lesion in primary sclerosis is wedge shaped, extends exteriorly to the pia mater, and interiorly as far as the posterior cornua. This, he claims, distinguishes it from secondary lateral sclerosis. The progress of the disease is probably the most chronic of all forms of spinal trouble. Uncomplicated cases do not shorten life. Prognosis is not favorable to recovery. Authors have reported cases as having recovered, but when an anatomical lesion has occurred I cannot see how recovery is possible.

Treatment. Arsenic and the bromides, nitrate of silver, galvanism, water cure, antiseptics, iodides, etc. The reader closed with the report of an interesting case, and gave a number of microscopic and photographic views illustrated by the magic lantern.

Dr. William Cheatham read a paper on

NEURO-RETINITIS ALBUMINURICA.

Having seen ten cases of this affection during his practice as an ophthalmic surgeon, he thought it well to report them. After making the detailed report, he showed a number of microscopical and photographic specimens by the magic lantern. He then spoke of the value of the ophthalmoscope in the diagnosis of renal disease, and showed diagrams of the normal and diseased fundus oculi. In five of the cases reported, no renal trouble had been suspected by the family physician. The connecting link between the trouble of the kidney and that of the retina has not been satisfactorily shown. Some have ascribed it to urea, others to albumen, and cases are reported which support both these views. The best prognosis can be made in those cases which follow the exanthematica, typhoid, and occur in the advanced stages of pregnancy. No special treatment of the eye is indicated except rest and the avoidance of bright light.

Dr. Orpheus Evarts, of the Cincinnati Sanitarium, read a paper on

OVER-WORK AS RELATED TO INSANITY.

The alarming and much talked of increase of insanity in this country, is ascribed by common consent to the restless industry, enterprise and push of the American. From 1870 to 1876, Dr. Evarts had admitted 1204 men, supposed to be insane, to the hospital. No distinction was made except as to chronicity and idiocy, which precluded admission. Of the 1204 but 17 had received even a nominal academic education, and only 25 were properly professional men, 12 being lawyers, 9 physicians and 4 clergymen. Of the remainder who lived by their wits, there were 1 actor, 1 author, 1 editor, 1 musician, 3 insurance agents and 1 gambler, making a total of 38 out of the 1,204 who might be said to live by brain work. Of the 12 lawyers only 3 were of more than ordinary capability or reputation in the profession, and one of these had reached senility, the other two had been intemperate in the use of alcohol and tobacco. Of those classified as physicians not one had been a student or thinker. Inherited defects of organism, night riding and exposure, whiskey, opium, and tobacco excesses, poverty and ignorance, and neglect of personal hygiene would figure conspicuously in their clinical history. Of the four preachers one was a "crank," one epileptic, and the other two were half starved and otherwise devitalized victims of the untoward circumstances of their birth.

"Recollections of more than 4,000 insane persons that have come under my observation within ten years of continuous service as superintendent of a public hospital for the insane, aided by a review of the statistics, do not change the conclusions to be drawn from these selected examples; nor do other observations, more fully and studiously made, of the inmates of a private asylum for the insane, extending over a period of six years, though a much larger proportion of such inmates are persons of more than the ordinary intelligence and acquirements of the general population of public hospitals for the insane. The same general features of causation are seen through all disguises, viz: an inherited potentiality, developed by a variety of mixed influences emanating chiefly from conditions of deprivation or excess. I conclude, therefore, that while over-work, in the general acceptation of the term, is a prominent factor in the causation of diseases, some of which are manifested by mental disorders, over-work in the performance of mental functions is not a frequent or sole cause of such diseases."

(*To be concluded.*)

FOREIGN CORRESPONDENCE

LETTER FROM PARIS.

(FROM OUR OWN CORRESPONDENT.)

Pyridine—Its Chemical History—Method of Administration—Soporific Effects—Its Value in Asthma.

Pyridine is the name given to a new substance introduced by Prof. Germain Sée in the treatment of asthma. Wishing to ascertain the rationale of the treatment of asthma by the smoking of medicated cigarettes and the veritable physiological agent to which the cure is attributable, Prof. See, in conjunction with Dr. Bochefontaine, discovered by chemical analysis that the therapeutic action of the cigarettes was due to a uniform base formed by the combustion of certain plants and of certain alkaloids. This substance is pyridine, which is developed during the distillation of dry organic matters in the products of bony tissues (animal oil of Dippel), coal tar, and certain important alkaloids, such as cinchonine, quinine and morphine; it is also found in the products condensed from the fumes of tobacco, and, finally, it is found in nicotine itself, in which a pyridic nucleus was discovered in 1880 by Cahours and Etard. Whatever its origin or mode of preparation pyridine is a colorless liquid, which evaporates in the air at an ordinary temperature, giving out a strong penetrating odor. It is mixible in water in all proportions, and forms with mineral acids very soluble salts, but which are easily disintegrated.

The best mode of introducing pyridine into the organism is neither by subcutaneous injections of its salts, on account of their rapid disintegration, nor by the inhalation of pure pyridine, which provokes nervous troubles, it is by aspiration that it acts best. 4 or 5 grammes are poured on to a plate, which is placed in a closed room containing about 25 cubic metres of air. The patient, occupying a corner of the room, thus breathes the air mixed with the pyridic vapors, each sitting should last from twenty to thirty minutes, and be repeated three times a day. Absorption is immediate, and the pyridine can be detected in the urine almost immediately after the commencement of an inhalation. The patients at once experience a marked diminution of the oppression so common to asthmatics, the breathing becomes easier, and they have no longer the intense longing for fresh air, results due to the fact that the sensibility of the pneumogastric nerve and the excitability of the medulla oblongata are considerably diminished.

The action of the heart during this time becomes normal. After each sitting, the patients feel an irresistible tendency to sleep, which becomes neither complete nor profound, and is not accompanied by insensibility. This effect of pyridine completely distinguishes it from the sleep produced by chloroform, ether, and the other anæsthetics in common use. While the sleep lasts, sensations, followed by reflex phenomena are provoked with difficulty, although contractile energy is maintained. The administration of pyridine is not followed by paralysis, convulsions, or tremors, but the muscles are relaxed, and temporarily lose their tonicity, in consequence of the lessened sensibility of the medulla oblongata and spinal cord. This modification of reflex sensibility is peculiar to pyridine, distinguishing it from the substances from which it is extracted, as, for example, nicotine and atropine.

The 14 cases in which Professor See tried the pyridine were 3 women and 11 men, with ages ranging from 30 to 68 years, 9 of whom were pure asthmatics, and 5 subjects of heart disease, they were all more or less relieved. One patient who had suffered from asthma from childhood, and another who had had the disease for 12 years, were greatly relieved by the treatment with pyridine, but it had to be discontinued in consequence of troublesome attacks of vertigo and nausea. The patients who presented cardiac and renal complications declared that respiration became much easier by the inhalations. Professor Sée therefore concludes that pyridine is preferable to hypodermic injections of morphia, its action being less dangerous than that of the latter, and it does not affect the general health. Its use, however, is indicated only for the relief of the fits of asthma, but for the cure of the affection, Professor Sée places the greatest reliance on iodine and its preparations, for which he considers them as almost specific remedies, whether the asthma be of nervous or cardiac origin, while pyridine is the most useful adjuvant.

The following are the conclusions of the work addressed by Professor Sée to the Academy of Sciences on the treatment of asthma: 1. Whatever be the form of the asthma, whether it be primitive or of gouty or other origin, "ioduration" constitutes the veritable curative method. When iodism supervenes, pyridine should be employed, and it may be considered the most efficacious remedy against the attacks. In other words, pyridine is the best palliative, while iodine is the efficacious remedy. 2. Pyridine is superior to injections of morphia, its action is more durable and more inoffensive. 3. In simple nervo-pulmonary asthma the attacks may be completely arrested. For the severe form complicated with permanent pulmonary lesions, the treatment should be continued for eight or ten days after cessation of the attacks, in order to consolidate the amelioration obtained. In cases of cardiac asthma, with or without renal or dropsical complications, pyridine may still render the greatest service by combating the most persistent, the most distressing phenomena which torment cardiac patients, that is, oppression, whether continued or whether paroxysmal. A. P.

DOMESTIC CORRESPONDENCE.

LETTER FROM PHILADELPHIA.

(FROM OUR OWN CORRESPONDENT.)

The Feeling and Action of the Profession in Regard to the Proposed International Medical Congress, Wholesale Withdrawal from Participation in it—More Money for the University of Pennsylvania—The Women's Medical College, Facilities for Study, Arterio-Venous Aneurism—What the Women Write their Theses About.

The matter which at this time is most in the mind of the medical profession in this city is the prospect in regard to the proposed meeting of the International Medical Congress, in Washington, in 1887. It has been feared that the stirring up of sectional jealousy which took place in New Orleans, at the instigation of certain men who thought better of themselves than the committee on organization thought of them, might lead to action on the part of the enlarged committee which would make it impossible for a number of the original committee, and of their appointees, to retain their positions without a sacrifice of their self respect. This apprehension has been justified, it would appear, by the proceedings of the enlarged committee in Chicago, when such changes were made in the *personel* of the committee of organization and its appointees, and such a disposition was shown to put into prominent positions some of the men who are here thought to have been willing to risk the ruin of the whole plan for the Congress, in the hope that out of the troubled waters they might fish something to their own advantage, that there has been a feeling of strong indignation here, and the conviction has deepened that there is no hope of a successful or creditable meeting of the Congress while the management is in the hands of such men, and is subject to such influences, as were paramount at the meeting in Chicago.

As an evidence of this conviction, I may state that, a few days ago a meeting was held of the members of the general committee and the officers of sections, resident in Philadelphia, at which it was unanimously resolved that the changes made at Chicago were inconsistent with the original plan for the meeting of the Congress and detrimental to the interests of the medical profession in America and of the proposed Congress, further, every one present declined to hold any office in connection with the proposed Congress as to be organized The full significance of this determination will be better understood when I say that there were present, or signed the resolutions after the meeting, among others, Drs Leidy, Stillé, Agnew, Bartholow, Wood, Parvin, Norris, Pepper, Weir Mitchell, Goodell, Gross Hays, Da Costa, Osler, and Yandell, of Louisville, who happened to be in the city, and was present by invitation This list, it will be seen, includes the names of some of the men in our profession most honored in this country and all over the world, some of them were among the founders of the American Medical Association, three were formerly Presidents of the Association, four are Chairmen of Sections of the proposed Congress, and one is the Secretary General just appointed at Chicago

I have information that the profession of Boston have just taken similar steps to express their dissatisfaction with the way things were managed by those who had control in Chicago, and that the profession in Baltimore will, in a day or two, do the same

It may be too late to save the Congress, but it is not too late to let your readers know what is the opinion here in regard to the men and methods which are held responsible for the disgrace which is likely to fall upon the whole American profession for its failure in this instance to justify the hopes and promises of those who invited the Congress to meet here in 1887 There is no dissent to the determination in this city that what has taken place at New Orleans and at Chicago, to the damage of the Congress, shall not be sanctioned even in appearance, or permitted to stand as the work of Philadelphia, at all, notwithstanding the fact that a Philadelphian is charged with having had a great deal to do with it This I write so that your readers may know, as they have a right to, what the sentiment here is in regard to this matter, and that they should have this information to guide them in placing the blame of the present unfortunate state of affairs where it justly belongs

The University of Pennsylvania has had another windfall Professor Tyndall, of London, has given a sum larger than ten thousand dollars to found a Fellowship in Physics This amount is the third of a sum acquired by Prof Tyndall from his lectures in this country in 1872, together with the interest which has accrued since then The recipients of the other thirds—for he has given the whole away—are Columbia College and Harvard University

In my last letter I gave some account of the College of Physicians of Philadelphia, and the facilities it affords for research to any student who may come properly recommended to it The progressive character of the college is perhaps in no way more strikingly exhibited than in the fact that its opportunities for study are embraced by a large number of women Among the grave male faces which are seen here poring over the books, are to be seen daily the faces of studying woman, with pen or pencil extracting what they can from the treasures of the library This fact is partly due to another, that we have in Philadelphia not only a Women's Medical College, but also the oldest medical college for women in the world, besides which, it is no exaggeration to say that it is the best in the world The Women's Medical College of Pennsylvania was organized a little over thirty years ago The first class graduated in 1857, and numbered eight women, the last class graduated this spring and numbered twenty-two The facilities for the study of medicine in this college are excellent, the faculty consisting of five men and five woman professors, or perhaps it would be better to put it, as it stands in the catalogue, five women and five men Besides these there are a number of instructors and lecturers, the entire list including some of the best known men in this part of the country In addition to the didactic instruction of the regular curriculum, the students have the advantage of a number of practical and laboratory courses, just as the students of the best colleges for men have There is also a flourishing Women's Hospital, so associated with the college as to constitute almost an integral part of it This hospital treated last year nearly five thousand patients, two hundred and sixty-two of whom were in patients Then there is a Nurse's Training School maintained in the hospital, which affords one of the best fields in America for instruction in this important department of treating the sick Already about a hundred nurses have completed the course of instruction and received the diploma of the institution

The Women's Medical College stands among those honorable institutions in this country which exact a three year's graded course of study from those who ask from them the degree of M D The winter session in this school is eight months long, too, instead of five, as is still too common elsewhere Even when the full course has been gone through, the examinations are conducted so severely as to weed out any who are not fitted to receive a degree At the last examination, four candidates were rejected out of twenty-six—a percentage which it would not be easy to duplicate in the colleges for men The class of students compares favorably with any other set of medical students Their teachers praise their diligence and assiduity, and seem to grow more convinced of the feasibility and advisability of the admission of women to the medical profession on the same footing as that of men the longer they are engaged in this work It is interesting to learn that the majority of the students of this college, expect to practice among women and children almost exclusively, yet the teaching in other departments is not neglected, nor their study slighted

Recently Dr W W Keen, Professor of Surgery, operated upon a very interesting case of arterio venous dilatation situated just above the elbow, in an otherwise healthy and blooming young Swedish woman, aged 18 years In addition to the local trouble, she presented the curious symptom of thrill and bruit above the clavicle. After other measures had been tried fruitlessly, Dr. Keen cut down upon the tumor and ligated the vessels involved, which proved a troublesome matter, since they were very numerous and bled profusely. The operation was done with the antiseptic precautions of Lister, in which Dr. Keen is a firm believer, and the patient thus far has done very well. After the operation there was no rise of temperature, and the subsequent treatment was of the simplest character.

In looking over the list of subjects of the graduating theses in the catalogue of the Women's Medical College, it is curious to observe that out of nearly 400 theses, only 44 are upon conditions physiological or pathological peculiar to women, and only 14 on such as are peculiar to children. Among the former, seven are on obstetrical subjects, four or five are on operations upon the vagina or uterus, three are on abortion, one on infanticide, one on fœticide, only one on dysmenorrhœa, one on the function of generation, one on amputations, and only two on women as physicians. Another curious matter in regard to the women who have entered the practice of medicine from this college is that, so far as can be learned from the list of the alumnæ, 64 out of the 398, that is, about 16 per cent., have married since their graduation. A large number of the graduates have settled in this city, and they seem to get along very well, notwithstanding the fact that as yet the County Medical Society has refused to elect any women to membership. The question of their admission arises from time to time, but as yet no one has received a vote sufficient to secure an election. In regard to this matter there is an honest difference of opinion between those who favor and those who are opposed to the admission of women to this society, and it is likely that each somewhat misunderstands the other. Time will doubtless make it all right. C. W. D.

INJURIOUS EFFECTS OF COCAINE.

Dear Sir:—Having seen recently, in the different medical journals, numerous statements of the unpleasant effects of the continued use of cocaine in eyes, subsequent to operations, producing turbidity of the cornea, I have thought that a brief statement of my own experience with its effects during the last six months, not only upon my patients, but upon myself, might be of interest, as I think it accounts for this unpleasant effect of the drug.

The anæsthetic influence of cocaine, especially upon mucous membrane, is conceded, but in addition to its anæsthetic influence, it has a remarkable influence upon the vaso motor nerves, exciting contraction of the organic muscular fibres of the arterioles. This influence is also known, but I think it is overlooked in many of these cases that are reported unpleasantly. This vaso motor influence is especially noticeable, when cocaine is applied to hyperæmic, or old chronic inflammatory membranes. Within a few minutes after its application to such eyes, there is a remarkable depletion of the vessels, and the membrane, which before the application was engorged with blood and lymph deposits, is now pale and comparatively blanched, and in some cases remains so for almost two hours. Now I can readily see, that in operations upon an eye in which the membrane itself is in its normal state and the vessels scarcely perceptible to the naked eye, that this driving of the blood from the vessels, would most likely be overlooked, and by continuous applications of cocaine to allay any pain subsequent to an operation, there could be such absolute depletion—the sensory nerves being paralyzed, and the vaso motor under an irritant or stimulant influence—that turbidity, and finally necrosis of the cornea might ensue by thus depriving the parts of the necessary blood to maintain nutrition of the delicate membrane.

Atropine, instilled into the eye, reverses this state of affairs, especially motility. The irritability of the vaso motor nerves is overcome, reaction is established, arterial tension increased, and the ill effects of the continued influence of cocaine are soon righted, turbidity of the cornea clears up and the structure assumes its normal state. Such I conceive, from my own experience with the drug, is the cause of the unpleasant effects recently reported.

I think the anæsthetic influence of cocaine can be maintained for an indefinite period by repeated applications, if, at the same time, a sufficient quantity of atropine be instilled into the eye to overcome the irritant influence of the cocaine upon the vaso motor nerves, thereby maintaining a sufficient blood supply to overcome any malnutrition of the cornea. I would be pleased to hear from others on this subject.

Respectfully, J. CRAFT, M.D.

Cleveland, Ohio.

PROPHYLAXIS OF DIPHTHERIA.

Dear Sir: I have read with much interest Dr. Nunn's paper, and the discussion had thereon, published in your issue of June 13, and take pleasure in adding my testimony to the value of biniodide of mercury in the treatment of severe cases of diphtheria. While pleased, however, with the admirably written paper, I was disappointed at finding no reference to the prophylaxis of the disease. Is it not as much the duty of the physician to prevent disease, or check its spreading, as it is to cure existing cases? In the *Therapeutic Gazette*, some seven years ago, I published my theory of the prophylaxis of diphtheria, and the article was largely copied by medical journals in this country and Canada. Having then had only a few opportunities for testing the trustworthiness of the theory, I requested practitioners who might test it, to send the results to me, and I have since that time received scores of letters from physicians, embracing territory from Maine in the East to California in the West, and the letters, with very few exceptions, corroborate my experience, which has been, that in no instance where the prophylactic remedies were faithfully administered did they fail to restrict the disease to the person first affected by it.

The cases, during the past seven years, in which I have tested the trustworthiness of the prevention, have embraced all the degrees of virulence from the exceedingly mild type, to that of the rapidly fatal. Three weeks ago I was called to a case, the first in the locality, which rapidly developed the most alarming indications, and despite anything I, or able council could do, the patient died within a week. Notwithstanding the malignity of the disease, and the fact that younger children, the parents, nurse, etc., had all been exposed to the contagion, thanks to the prophylaxis, or to some other cause unknown, there has been no other case of the disease in that family. As some of your readers may not have seen the article to which reference has been made, it may not be improper here to briefly restate the theory. Believing in the germ origin of the disease, I thought it reasonable that any remedy which would destroy the bacteria when developed would prevent the development of the micro organism in those who had been exposed to the infection, and therefore to all such I administer the same constitutional remedies that I exhibit to the patient. I do not assert, from the experience of seven years, that the prophylaxis will never fail, but with such encouraging results thus far, is it not our duty to continue testing it until it shall (if it ever does), prove untrustworthy?

T. R. Buckham, M. D.

Flint, Mich., June 24, 1885.

PUERPERAL ECLAMPSIA, CAUSED BY ALBUMINURIC UTERO-GESTATION

Dear Sir:—On April 6, 1885, I was called to attend Mrs. L. F., whom I found sitting up in a chair, with her lower extremities extended upon another chair, in a partial semi-reclining attitude. There was general anasarca, with an exaggerated manifestation of the condition in her lower extremities, from the core downward. I found, upon examination, that she was in an advanced stage of pregnancy, and albuminuric, and that her condition was of no little concern. I began a tonic course, with a view to improving the blood, but before there was a suspicion of maturity, owing to my cognizance of the marital date, I was no little surprised when I was sent for the next night. I found her in labor, which terminated happily with a male infant, yet not vigorously developed. I gave instructions as to the attention that was due the mother, and returned home, intending to visit her again at 9 A. M. I was called again at daylight, urgently, with information that she had had a convulsion. I found, upon reaching her bedside, that it was true, and that she had bitten her tongue fearfully.

With the albuminuric condition, the œdema of the tongue following was so great as almost to preclude her free and easy respiratory effort, and I feared at one time that I should be compelled to perform tracheotomy, but fortunately it was not necessary, notwithstanding she had convulsions at intervals for four days.

I was able to sustain her upon iced milk, for its nutritious as for its calmative influence upon the swollen tongue. I also allowed her to have crushed ice to dissolve upon her tongue. I used, by enema, a combination of chloral and bromide of potassium, by giving it freely and keeping her positively under the influence of it, save towards the more improved termination of the case. I added 30 drops tr. opii. Nutritious addenda were made to the enemata, so that her strength was fortified coincidently with the arrest of the convulsions.

Geo. N. Monette, M. D.

285 Camp street, New Orleans.

CORRECTION

Dear Sir:—In your issue of June 13, 1885, page 668, is an item that needs correction. The paragraph alluded to should read as follows: Dr. X. C. Scott moved the appropriation of $500, or so much as should be necessary to pay the necessary personal expenses of the committee appointed to advocate before the legislature of Ohio the necessity of "Medical Examiners" for this State; also, a "State Board of Health." Dr. Franklin supported the motion, saying that the Society could not expect their committee to pay their own traveling expenses, their hotel bills, for printing circulars, and paying postage, etc., out of their own pockets.

Dr. Franklin has never been a member of the legislature, and did not make the remark attributed to him by your reporter. Respectfully,

Member Ohio State Medical Society.

Chillicothe, Ohio, June 28th, 1885.

RUPTURE OF OVARIAN CYST DURING COITUS

Dear Sir:—I notice in some of the journals giving a report of the proceedings of the Surgical Section of the recent meeting in New Orleans, that I am reported as having stated in a case of ovarian cyst that during coitus the cyst was ruptured, thus causing the tumor to disappear, and with it the death of the patient. The reporter's statements are correct with a single exception: the woman survived and is now well. Yours truly,

W. F. Peck.

Davenport, Iowa, May 13, 1885.

BOOK REVIEWS

Neuralgia and the Diseases that Resemble it. By Francis E. Anstie, M. D., London, F. R. C. S., Senior Assistant Physician to Westminster Hospital, Physician to the Belgravia Hospital for Children. Sm. 8vo., pp. 233. New York and London: G. P. Putnam's Sons. 1885. Chicago: W. T. Keener.

We regret to say that the author and the publishers have followed a very bad example, which seems to be almost epidemic this year, of sending out a book without an index. We have so frequently referred to this matter during the past three or four months, that we do it again at the imminent risk of having some one suspect that we have acquired a new form of insanity, "Indexomania." But next to being hopelessly bad or pernicious, there is no fault so great in a book as the want of an index, and every one who intends writing a book, and every publisher, should believe these words and have them posted in a conspicuous place.

But aside from this, Dr. Anstie has given us an excellent book. The work consists of an introduction, on Pain in General, in two parts. The first part contains five chapters on the Clinical History, Complications, Pathology and Etiology, Diagnosis and Progress, and the Treatment of Neuralgia. The second part, devoted to the diseases that resemble neuralgia, treats of Myalgia, Spinal Irritation, the Pains of Hypochondriasis, Locomotor Ataxy, Cerebral Abscess, Alcoholism, Syphilis, Subacute and Chronic Rheumatism, Latent Gout, Colic and other pains of Peripheral Irritation, and Dyspeptic Headache. It is almost a foregone conclusion that Dr. Anstie should have written a good book on neuralgia, as will be acknowledged by those who had the pleasure of reading his contributions on this and kindred subjects in the English journals previous to his death. The presswork is not in the usual good style of the Putnams, the type is too small for entirely agreeable reading. But aside from these considerations we cannot see the utility of a reprint of a book, unchanged, fourteen years after its first appearance.

Myths in Medicine and Old Time Doctors. By Alfred C. Garratt, M. D., fellow of the Massachusetts Medical Society, etc., 8vo., pp. 242. New York and London: G. P. Putnam's Sons, 1884. Chicago: Jansen, McClurg & Co.

This book (which should have been indexed) is a very readable epitome of the history of Medicine. It is to be regarded as a luxury rather than as a necessity for the physician's library, but it is one in which very much of interest may be found. In reading the first chapter on "Eminent Physicians of Ancient Times," from Hippocrates to Galen, we are somewhat surprised to find that some of the views expressed by Galen, and which are now myths (and believed by many people) are not mentioned. For example, the curious belief that has existed since the time of Galen, that human health is largely under the influence of the moon. Galen states that animals born at the full of the moon, are strong and healthy.

This belief in the influence of the moon has been very wide spread. It is mentioned by Kuckringius and Mead, and by Martius in 1700 in his Erfurt Address, and in the time of Cockayne, who devotes considerable space to it, it was firmly believed by the leeches. It will be remembered that Sir Thomas Browne refers to the following simple method of getting rid of warts: "Go out and watch when the new moon (or full moon) is just over head. Then rub the affected hand with the other." Langham's "Garden of Health" gives an equally certain remedy. For generations and generations, the May moon has been thought, in the South of England, to have a share in curing scrofulous complaints. Henderson in his "Notes on the Folk-Lore," tells of a "cunning man" in Dorsetshire, whose charms were only potent in the month of May, and when the moon was new. Sir Kenelm Digby, in his "Discourse on the Power of Sympathy," mentions a cure for warts in which the moon is a potent factor. Galen believed that the moon governed the periods of epileptic seizures, and Mead endorsed his opinion, and he quotes from Bartholin the story of an epileptic girl who had spots on her face, which varied with the time of the moon, both in color and size. Chaucer speaks of a fever supposed to be caused by the moon, and Culpepper, in his "English Physician" tells us that the left eye of man and the right eye woman, are the privileges of the moon.

Some very interesting reading could have been made, by relating these and dozens of other superstitions and myths. The closing pages of the book, are devoted to a consideration of what may be called "The little end of nothing whittled down to a point,"—homœopathy.

ASSOCIATION ITEMS.

Dr. C. C. Frost, of Nashville, Tenn.—In the 26th number of Vol. 4, June 27th, was published the list of Delegates and members from the several states, who were in attendance at the meeting in New Orleans, April 28th, 1885. In the list from Nashville, Tenn., appears the name of C. C. Fite, M. D., which should have been C. C. Frost, M. D.

Special Notice Concerning No. 4, Vol. 3, of this Journal.—We wish again to remind all readers of the Journal who are looking over their files for binding or any other purpose, that by mistake of the former printer, number *four*, volume *three*, July 26th, 1884, had the number and date of the preceeding week, namely number 3, July 19th, 1884, retained on the outside front page. On the inside pages throughout, the *number*, *date* and pages are all correct. Therefore we wish to emphasize the request that all those who, in glancing over their files, suppose they find *two* copies of number 3, July 19th, 1884, and none of number 4, July 26th, will take the trouble to compare the numbers and dates on the first page of reading matter of the two copies, and they will readily discover, that instead of duplicates, they have the two successive numbers that they need.

MISCELLANEOUS.

Another Diphtheria Prize.—M. and Mme. Victor Saint-Paul have given 25,000 francs to the Academie de Médecine, to constitute a prize for the discovery of a remedy which shall be recognized by the Academy as efficacious in diphtheria. The prize is open to the world. Until the remedy is found, the interest on the above-named sum, will be paid every second year to those whose work or researches on the subject are considered best by the Academy.

The Cholera in Spain.—Dispatches from Madrid, of July 6, state that in the whole of Spain on July 4, there were 1,467 new cases of cholera and 660 deaths from the disease. Of these there were 219 new cases and 56 deaths in Aranjuez, 264 new cases and 144 deaths in the city of Valencia, and 680 new cases and 417 deaths in the provience of Valencia.

Cholera in Marseilles and Toulon —The United States consul at Marseilles has informed the Department of State that cholera has again appeared in that city and in Toulon A general exodus from Marseilles has begun He reports that the apparent death rate is below the average

Ferran's Proprietary Vaccination —It is stated, by the Valencia correspondent of a daily contemporary, that Dr Ferran objects to revealing his secret of cholera vaccination except for monied consideration

Study in Hygiene —Dr John S Billings, U S A , Lecturer on Hygiene in the Johns Hopkins University at Baltimore, recently gave a lecture before the officers and students of the university, outlining a course of study in hygiene He said that it should include an account of the principal causes of disease, including heredity, meteorology, the present position of the germ theory, etc , of water supply and its impurities, water analysis, methods of obtaining and storing water for use, water-waste and its prevention, the pollution of streams, the disposal of water after it has been fouled by household use, of scavenging, including methods for the disposal of house refuse and sewage, the general principles of the so-called combined and separate systems of sewerage, and their modifications, house drainage and plumbing, heating and ventilation, and of the principal application of the general principles of sanitary construction, in both private habitations and public buildings He said that every well educated man should be able to form an intelligent opinion as to the sanitary condition of a house, a school building, or a hospital A citizen is liable at any time to be concerned in the construction or management of some of these institutions, and must act in a judicial capacity upon the recommendations of people having opposite opinions, and, sometimes, opposing interests The habitations of the poorer classes, and especially tenement houses, and the best means of regulating these so that they shall not become causes of disease and immorality,—and to do this without interfering unduly with private rights, which involves not only sanitary considerations, but also some of the general principles of sociology and political economy,—should also be a subject of instruction Food and its adulterations, the special dangers and nuisances connected with certain occupations, the proper modes for caring for the dead, the subject of vital statistics, including methods for taking a census, for registration of births, marriages and deaths, and of classifying, tabulating, and publishing the information derived from these methods of preparing life tables, and of calculating expectation of life, and so much of the jurisprudence of hygiene as would enable the student to understand his own relation as an individual in this respect and those of the people to the state, and of the latter to the nation, including the general principles of laws establishing boards of health, the methods of checking the spread or importation of contagious or infectious diseases, quarantine, and the common law of nuisances were suggested as other proper subjects for instruction in such a course Dr Billings thought that the subject was worthy of study for its own sake, and, besides, that the knowledge thus gained would be decidedly advantageous to every professional man, enabling him to form an intelligent opinion as to the influence which his surroundings would have upon the health of himself and his family, to take timely steps for prevention, and to protect himself from being unnecessarily alarmed or unduly swindled by charlatans in the guise of sanitarians —*San News*, May 30, 1885

Health in Michigan —Reports to the State Board of Health, for the month of June, 1885, compared with the preceding month, indicate that cholera morbus and diarrhœa increased, and that pneumonia and bronchitis decreased in prevalence

Compared with the average for the month of June in the seven years, 1879–1885, measles, remittent fever, intermittent fever, whooping-cough, pneumonia, consumption of the lungs, bronchitis, and diarrhœa were less prevalent in June, 1885

For the month of June, 1885, compared with the average of corresponding months for the seven years 1879–1885, the temperature was lower, the relative humidity was more, and the absolute humidity, and the day and night ozone were less

Including reports by regular observers and others, diphtheria was reported in Michigan in the month of June, 1885, at 41 places, scarlet fever at 27 places, and measles at 16 places

Professor H Newell Martin, of Johns Hopkins University, has been elected a Fellow of the Royal Society of England

State Board of Health of Pennsylvania —The Governor of Pennsylvania has appointed the following, to act as members of the State Board of Health Col William Ludlow, Drs Benjamin Lee, Joseph F Edwards, and Pemberton A Dudley, of Philadelphia, E W Germer, of Erie, and J W McClellan, of Pittsburgh

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U S ARMY FROM JUNE 27, 1885 TO JULY 3 1885

Major H E Brown, Surgeon, assigned to duty as post surgeon, Fort Reno, Indian Ter (S O 91, Dept Mo , June 24, 1885)

Captain F C Ainsworth, Assistant Surgeon, relieved from duty at Hdqr's Dept Mo (S O 93, Dept Mo , June 26, 1885)

Captain B D Taylor, Assistant Surgeon, assigned to duty at Little Rock Bks , Ark (S O 139, Dept East, July 1, 1885)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING JULY 4 1885

Shafer, Joseph, Assistant Surgeon, for duty on board the U S receiving ship "St Louis," League Island, Penn , July 10, 1885

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE TWO WEEKS ENDED JUNE 27 1885

Long, W H , Surgeon, granted leave of absence for three days, June 18, 1885

Fessenden, C S D,, Surgeon, leave of absence extended seven days on account of sickness, June 24, 1885

White, J H , Assistant Surgeon, granted leave of absence for twenty one days, June 23, 1885

THE
Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY.

Vol. V. CHICAGO, JULY 18, 1885. No. 3.

ORIGINAL ARTICLES.

BLOOD, AND HOW TO MAKE IT, FAT, AND HOW TO REDUCE IT.[1]

BY BENJAMIN LEE, A.M., M.D., PH.D.,
OF PHILADELPHIA, PA.

The valuable and suggestive little treatise whose title I have partially borrowed as the heading of this paper, contains, in my judgment, together with very much that is useful, suggestions of lines of treatment which are open to serious objection, and which, in other hands than the author's, are capable of producing injury rather than benefit. The essential feature in his management of the class of nervous and hysterical valetudinarians which he considers in the work referred to, is the systematic employment of *Massage* and the *Movement Cure*. The enforced *rest*, the characteristic which impresses itself upon the popular mind, and which has given the name to his system is, apart from its influence on the *morale* as a means of subduing the perverse will of a spoiled child, simply an accident of the massage and the acto passive exercise, necessary to a certain extent in order to reap the full benefit of those methods, not necessarily remedial in itself, and, without them, as likely to do harm as good.

The *over-feeding* which is another portion of his plan much insisted on, is only made possible by the mechanical treatment mentioned, and but for that must prove in the highest degree pernicious. Even with this precaution, there is room for doubt whether it may not overload the emunctories to a degree entirely beyond their capability to take care of the unassimilated material, forced upon them in order to build up the adipose tissue. But even if we have succeeded in this attempt, and have plastered over the muscles and bones with a liberal layer of fat, we can be by no means sure that it will stand the wear and tear of real life and will not, with the return to home duties and cares and fatigues, "consume away like the fat of lambs." Of all the words of wisdom contained between the covers of the little treatise referred to, not one of them is at once more sententious and more truthful than the remark of that delightful old nurse that "some fats is fast and some fats is fickle, but cod-oil fat is easily squandered."

We can not be sure, however, that the carbon supplied so much in excess of the demand will be stored up exactly where we design it to be, that it will obediently take its place on the outer surfaces of the muscles, and form a graceful layer beneath the integument, and not rather deposit itself interstially in the muscular tissue, enfold the heart in a stifling blanket, or permeate the liver from capsule to gall-duct. When in charge of the hospital of the Colored Home in New York, during my student days, it was my fortune to see much of fatty degeneration, both as detected during life in the *arcus senilis*, and the tones of the flabby heart, and as revealed in the glandular organs by the autopsy. And I have not changed the opinion then formed that its frequent occurrence in that race was owing, in part at least, to the large quantities of fat pork consumed by them. The Italian ortolan, seduced by supposititious sunrises into taking five meals a day, is not as happy or lively a bird as his American cousin the bobolink, which feeds but twice. A Strasbourg goose is certainly not the synonym of health and vigor, and however tempting a *pate de foie gras* may be to the palate of the epicure, the livers which compose it were anything but a source of comfort to their original owners. Life which depended on such livers was certainly not worth living.

What constitutes the firm, elastic flesh of a healthy infant, or the exquisite lines of embonpoint in a beautiful woman is not so much the layer of fat underlying the skin, as *capillary tone* in the *rete mucosum*, in the fat itself, and in the muscles.[1] Take away that essential element, and the skin either shrinks into the rigid wrinkles of collapse, hangs in the flabby folds of inanition, or puffs up in the shapeless tumidity of œdema. Who has not had the sad experience of seeing a baby one day as plump and rotund as a study of Murillo, and the next with the sunken eye and hollow cheek of cholera infantum? And yet will any one claim that in that brief interval there has been any material loss of adipose tissue? Is it not simply that the fluids have been drained away, especially from the surface, that the capillaries are empty, and the superficial vessels are in a state of collapse? Hence I hold that in these cases of impaired nutrition, hydrated blood, degenerated tissue and depressed nerve force, our

---

[1] Read in the Section on Practice of Medicine, Materia Medica and Physiology at the Thirty sixth Annual Meeting of the American Medical Association.

[1] Burdon Sanderson says: "The capillary is not a dead conduit, but a tube of living protoplasm." Kirke says: "The capillaries must be looked upon not as mere passive channels for the passage of blood, but as possessing endowments of their own (vital capillary force) in relation to the circulation. The capillary wall is actively living and contractile, and there is no reason to doubt that, as such, it must have an important influence in connection with the blood current."

Cholera in Marseilles and Toulon —The United States consul at Marseilles has informed the Department of State that cholera has again appeared in that city and in Toulon A general exodus from Marseilles has begun He reports that the apparent death rate is below the average

Ferran's Proprietary Vaccination —It is stated, by the Valencia correspondent of a daily contemporary, that Dr Ferran objects to revealing his secret of cholera vaccination except for monied consideration

Study in Hygiene —Dr John S Billings, U S A, Lecturer on Hygiene in the Johns Hopkins University at Baltimore, recently gave a lecture before the officers and students of the university, outlining a course of study in hygiene He said that it should include an account of the principal causes of disease, including heredity, meteorology, the present position of the germ theory, etc, of water supply and its impurities, water analysis, methods of obtaining and storing water for use, water-waste and its prevention, the pollution of streams, the disposal of water after it has been fouled by household use, of scavenging, including methods for the disposal of house refuse and sewage, the general principles of the so called combined and separate systems of sewerage, and their modifications, house drainage and plumbing, heating and ventilation, and of the principal application of the general principles of sanitary construction, in both private habitations and public buildings He said that every well educated man should be able to form an intelligent opinion as to the sanitary condition of a house, a school building, or a hospital A citizen is liable at any time to be concerned in the construction or management of some of these institutions, and must act in a judicial capacity upon the recommendations of people having opposite opinions, and, sometimes, opposing interests The habitations of the poorer classes, and especially tenement houses, and the best means of regulating these so that they shall not become causes of disease and immorality,—and to do this without interfering unduly with private rights, which involves not only sanitary considerations, but also some of the general principles of sociology and political economy,—should also be a subject of instruction Food and its adulterations, the special dangers and nuisances connected with certain occupations, the proper modes for caring for the dead, the subject of vital statistics, including methods for taking a census, for registration of births, marriages and deaths, and of classifying, tabulating, and publishing the information derived from these methods of preparing life tables, and of calculating expectation of life, and so much of the jurisprudence of hygiene as would enable the student to understand his own relation as an individual in this respect and those of the people to the state and of the latter to the nation, including the general principles of laws establishing boards of health, the methods of checking the spread or importation of contagious or infectious diseases, quarantine, and the common law of nuisances were suggested as other proper subjects for instruction in such a course Dr Billings thought that the subject was worthy of study for its own sake, and, besides, that the knowledge thus gained would be decidedly advantageous to every professional man, enabling him to form an intelligent opinion as to the influence which his surroundings would have upon the health of himself and his family, to take timely steps for prevention, and to protect himself from being unnecessarily alarmed or unduly swindled by charlatans in the guise of sanitarians —*San News*, May 30, 1885

Health in Michigan —Reports to the State Board of Health, for the month of June, 1885, compared with the preceding month, indicate that cholera morbus and diarrhœa increased, and that pneumonia and bronchitis decreased in prevalence

Compared with the average for the month of June in the seven years, 1879–1885, measles, remittent fever, intermittent fever, whooping-cough, pneumonia, consumption of the lungs, bronchitis, and diarrhœa were less prevalent in June, 1885

For the month of June, 1885, compared with the average of corresponding months for the seven years 1879–1885, the temperature was lower, the relative humidity was more, and the absolute humidity, and the day and night ozone were less

Including reports by regular observers and others, diphtheria was reported in Michigan in the month of June, 1885, at 41 places, scarlet fever at 27 places, and measles at 16 places

Professor H Newell Martin, of Johns Hopkins University, has been elected a Fellow of the Royal Society of England

State Board of Health of Pennsylvania —The Governor of Pennsylvania has appointed the following, to act as members of the State Board of Health Col William Ludlow, Drs Benjamin Lee, Joseph F Edwards, and Pemberton A Dudley, of Philadelphia, E W Germer, of Erie, and J W McClellan, of Pittsburgh

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U S ARMY FROM JUNE 27 1885 TO JULY 3 1885

Major H E Brown, Surgeon, assigned to duty as post surgeon, Fort Reno, Indian Ter (S O 91, Dept Mo, June 24, 1885)

Captain F C Ainsworth, Assistant Surgeon, relieved from duty at Hdqr's Dept Mo (S O 93, Dept Mo, June 26, 1885)

Captain B D Taylor, Assistant Surgeon, assigned to duty at Little Rock Bks, Ark (S O 139, Dept East, July 1, 1885)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING JULY 4 1885

Shafer, Joseph, Assistant Surgeon, for duty on board the U S receiving ship "St Louis," League Island, Penn, July 10, 1885

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE TWO WEEKS ENDED JUNE 27, 1885

Long, W H, Surgeon, granted leave of absence for three days, June 18, 1885

Fessenden, C S D,, Surgeon, leave of absence extended seven days on account of sickness, June 24, 1885

White, J H, Assistant Surgeon, granted leave of absence for twenty one days, June 23, 1885

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol V   CHICAGO, JULY 18, 1885   No 3

ORIGINAL ARTICLES

BLOOD, AND HOW TO MAKE IT, FAT, AND HOW TO REDUCE IT[1]

BY BENJAMIN LEE, A M, M D, PH D,
OF PHILADELPHIA PA

The valuable and suggestive little treatise whose title I have partially borrowed as the heading of this paper, contains, in my judgment, together with very much that is useful, suggestions of lines of treatment which are open to serious objection, and which, in other hands than the author's, are capable of producing injury rather than benefit The essential feature in his management of the class of nervous and hysterical valetudinarians which he considers in the work referred to, is the systematic employment of *Massage* and the *Movement Cure* The enforced *rest*, the characteristic which impresses itself upon the popular mind, and which has given the name to his system is, apart from its influence on the *morale* as a means of subduing the perverse will of a spoiled child, simply an accident of the massage and the acto passive exercise, necessary to a certain extent in order to reap the full benefit of those methods, not necessarily remedial in itself, and, without them, as likely to do harm as good

The *over feeding* which is another portion of his plan much insisted on, is only made possible by the mechanical treatment mentioned, and but for that must prove in the highest degree pernicious Even with this precaution, there is room for doubt whether it may not overload the emunctories to a degree entirely beyond their capability to take care of the unassimilated material, forced upon them in order to build up the adipose tissue But even if we have succeeded in this attempt, and have plastered over the muscles and bones with a liberal layer of fat, we can be by no means sure that it will stand the wear and tear of real life and will not, with the return to home duties and cares and fatigues, "consume away like the fat of lambs" Of all the words of wisdom contained between the covers of the little treatise referred to, not one of them is at once more sententious and more truthful than the remark of that delightful old nurse that "some fats is fast and some fats is fickle, but cod oil fat is easily squandered" We can not be sure, however, that the carbon supplied so much in excess of the demand will be stored up exactly where we design it to be, that it will obediently take its place on the outer surfaces of the muscles, and form a graceful layer beneath the integument, and not rather deposit itself interstially in the muscular tissue, enfold the heart in a stifling blanket, or permeate the liver from capsule to gall-duct When in charge of the hospital of the Colored Home in New York, during my student days, it was my fortune to see much of fatty degeneration, both as detected during life in the *arcus senilis*, and the tones of the flabby heart, and as revealed in the glandular organs by the autopsy And I have not changed the opinion then formed that its frequent occurrence in that race was owing, in part at least, to the large quantities of fat pork consumed by them The Italian ortolan, seduced by supposititious sunrises into taking five meals a day, is not as happy or lively a bird as his American cousin the bobolink, which feeds but twice A Strasbourg goose is certainly not the synonym of health and vigor, and however tempting a *pate de foie gras* may be to the palate of the epicure, the livers which compose it were anything but a source of comfort to their original owners Life which depended on such livers was certainly not worth living

What constitutes the firm, elastic flesh of a healthy infant, or the exquisite lines of embonpoint in a beautiful woman is not so much the layer of fat underlying the skin, as *capillary tone* in the *rete mucosum*, in the fat itself, and in the muscles[1] Take away that essential element, and the skin either shrinks into the rigid wrinkles of collapse, hangs in the flabby folds of inanition, or puffs up in the shapeless tumidity of œdema Who has not had the sad experience of seeing a baby one day as plump and rotund as a study of Murillo, and the next with the sunken eye and hollow cheek of cholera infantum? And yet will any one claim that in that brief interval there has been any material loss of adipose tissue? Is it not simply that the fluids have been drained away, especially from the surface, that the capillaries are empty, and the superficial vessels are in a state of collapse? Hence I hold that in these cases of impaired nutrition, hydrated blood, degenerated tissue and depressed nerve force, our object should not be to overload the economy with carbon and lay on layer after layer of adipose tissue, but to create a demand in the tissues farthest from the centre for healthy blood, by breaking down and forcing out the dead-alive cells with their accumulation of morbid deposit, and sending them to the emunctories to be excreted, and, as this demand begins to be felt, supplying it cautiously—principally with nitrogenous elements—and not in excess of the ability of the assimilating organs to manage it.

---

[1] Read in the Section on Practice of Medicine Materia Medica and Physiology at the Thirty sixth Annual Meeting of the American Medical Association

[1] Burdon Sanderson says The capillary is not a dead conduit but a tube of living protoplasm Kirke says The capillaries must be looked upon not as mere passive channels for the passage of blood but as possessing endowments of their own (vital capillary force), in relation to the circulation The capillary wall is actively living and contractile and there is no reason to doubt that, as such it must have an important influence in connection with the blood current'

In this way we shall build up the system, atom by atom, cell by cell, each tissue appropriating its peculiar aliment, and no one being nourished at the expense of another. In this way we may hope to develop a gain in weight, and a plumpness, which will outlast the hot-house period of enforced rest, since it will depend not upon a superficial layer of poorly condensed oil, but upon a capacity of all the tissues to retain a sufficient amount of blood in their vessels, and of lymph in their intervascular and areolar spaces, as well as upon an increase in both the number and the solidity of the cells composing them. The particular tissue in which we should look for greatest gain in this respect is the muscular, first, because it has usually been the most neglected in these cases, and suffered the most serious degeneration, and secondly, because it is the most intimately connected with the blood making process. I do not know that we should go very far wrong if we assigned this process in part as one of the functions of muscle. Constituting as it does, with its appurtenances, almost one-third of the entire man, and being, moreover, extremely vascular, it is not too much to suppose that under ordinary conditions it contains one half of the blood of the tissues, and under conditions of great activity, considerably more. It is the grand blood reservoir of the system, far surpassing the spleen in this character, and capable of infinitely greater expansion, under the necessity of great stress. But it may be that it is more than a reservoir, and that with its frequent force-pump action of contraction and relaxation, it is inviting the circulating fluid into itself not simply for the selfish use of self nutrition, but to prepare it for its purposes as a nutrient for other tissues. Certainly, if each tissue, in appropriating to itself the elements necessary for its own growth, is an excretory organ in its relation to all other tissues, as has been sagaciously observed, then the muscular tissue, from its immense preponderation of bulk and weight over all the other organs and viscera (excepting the bones), must be admitted to have most important uses, at least in eliminating materials which would be noxious to other portions of the economy. And daily experience combines with the results of scientific analysis to indicate this as one of the most important results of exercise. The following history will serve to illustrate my meaning.

In the winter of 1867 I was requested by Mr. J. S. to visit his daughter, living in one of the suburbs of Philadelphia. She had been confined to the bed for seven years, and he described her condition as so desperate that I felt sure that nothing could be accomplished in her case without the most assiduous personal attention. As it seemed impossible to bestow this at such a distance, and as I knew that she was in the hands of skilful practitioners, I represented to her father the difficulties of the situation, and respectfully declined to see her. The following day, however, he returned armed with so urgent a request from the attending physicians that I had no longer a right to resist his earnest solicitations. I accordingly saw her in consultation with the family physician and the consultant, on the 18th of December.

The following is a brief *resume* of her history up to that time. Her parents, both of them living, were of decidedly nervous temperament. As an infant she was so feeble and ill-nourished that it was not supposed she would live to adult life. As a child she continued to be delicate, able to undergo but little fatigue, and having a poor and irregular appetite. Menstruation was established at the age of fifteen, and a year later her debility began to increase rapidly, being especially marked in the morning, and it was noticed that her face and her feet were swollen on awaking. Pain in the back, extending through to the chest and epigastrium, now made its appearance. This was much increased by the pressure of her clothing. Blisters and other counter-irritants gave temporary relief. This condition continued with variations for four or five years, gradually becoming more serious. Her temper became very irritable, motion caused great pain, and locomotion was in consequence almost entirely given up for a time. There was then a period of slight improvement, but the pain frequently returned, usually ushered in by febrile symptoms. She suffered from almost constant nausea and frequent attacks of water brash. Menstruation was very painful. At first too frequent, it subsequently became the reverse, and was supplemented by vomiting of blood and discharge of blood from the mouth, apparently from the gums or mucous membrane. Finally it ceased altogether, and symptoms of grave nervous derangement supervened.

She became subject to violent hystero cataleptiform seizures, characterized by strong opisthotonos, rigid contraction of the extremities, and facial contortions. These alternated with fits of hysterical mania, during one of which she attempted suicide by throwing herself from a window. Her screams during these attacks could be heard for a long distance from the house. The seizures were almost invariably followed by sick headache, with very violent vomiting. Such was the state of things during the years 1861 and 1862. During the latter part of this period she took to her bed, and had not been able to walk since. During the summer of 1867 she was taken to Atlantic City, on a bed in a baggage car. While there persistent vomiting set in, at first recurring every ten or fifteen minutes, but gradually diminishing in frequency. This continued incessantly for four months, at the end of which time she had become excessively emaciated and so weak as to be unable to raise her eye-lids. Her eyes were now very sensitive to the light. As the irritability of the stomach diminished the irritation appeared to be transferred to the lower extremities, which began to draw up toward the body, while at the same time there was a sensation as of red hot needles piercing the feet. When the contractions became complete these sensations ceased, and the soles of the feet became at once anæsthetic and hyperalgesic. She compared them to "sensitive sponges." This condition had existed for about two months when I first saw her. My entrance into the room was greeted by a piercing shriek, and this was the only notice that the patient took of me during the entire visit, save that I could detect a slight muscular tremor in obedience to my command that she should move her hand as I held it in my own. She was emaciated to the last degree. Her face was pallid and her lips bloodless. The gums were spongy and bled at the slightest touch. Her lower lip was drawn under the teeth of the upper jaw, and forced against them with a rapid motion. Her hair was in a solid mat at the back of her head, it having been impossible to comb it for months. The hands were flexed on the wrists, the thumbs strongly adducted across the palms and the fingers clinched over them. The decubitus was almost dorsal for the head and shoulders, but the lower part of the body was twisted to the left, so that the position of the legs was lateral. The lower extremities were in a state of complete contraction, the knees almost touching the chin, the heels close to the buttocks, the feet in a line with the legs, and the toes bent under the sole, until the long toe nails were imbedding themselves in the flesh. The legs were also, much of the time, in active spasmodic motion, so that as they lay upon their sides notwithstanding the fact that they rested upon a water cushion, the external malleolus of the left and the internal malleolus of the right had become excoriated by the friction, and presented deep ulcers. The entire limbs were so painful to the touch that it was necessary to support the bed clothes on a hoop. There was also excessive pain in the abdomen and stomach.

To relieve this suffering she was taking enemata of large doses of morphia (I have mislaid my memorandum of the amount and do not venture to state it from memory), every two hours. She was unable to turn herself in bed, and could not bear to be touched, so that when occasion required she was turned on a sheet. For a long time she had evacuated the bowels only once a week, and that with the aid of an enema, laxatives having lost all effect. This operation was always followed by severe vomiting and great prostration. She had frequent distressing spells of hiccough and of protracted yawning. Menstruation had been completely suspended for four or five years, but she was still conscious of a sensation of being excessively swollen at the menstrual epoch. There was a very considerable right lateral curvature of the spine. She was living principally on stimulants (champagne, brandy, and Hoffman's anodyne), taking very little in the way of food.

In the consultation following my examination, it was agreed that the contractions and spasms were of reflex rather than of spinal origin, probably having their source in the reproductive organs, that the spinal curvature was of secondary importance, although not to be overlooked as an element in the case, and that the only hope was in restoring the capillary circulation in the extremities, stimulating tissue metamorphosis, and thus exciting a demand on the part of the system for food, which would then be appropriated and make healthy blood, for it was evident that she was anæmic to the last degree. The case was kindly consigned to my entire charge.

I at once instituted a course of massage and Swedish movements. It was at first addressed to the hands and feet alone. At the first visit the hands only were treated. Kneading was begun at the tips of the fingers, and extended up to the wrist. Passive movements were then made of the terminal phalanges, and successively of the others in turn, then of the entire fingers, and finally of the hand on the wrist. When an evidence of slight improvement in the circulation was given by increased warmth, more vivid coloration, and diminished rigidity of the joints, the patient was ordered to make slight voluntary movements of the fingers against slight resistance on the part of the masseuse, and in her turn to oppose all the resistance of which she was capable to the movements of the former. She was of course obstinate at first, and obeyed most unwillingly, but the constantly repeated injunctions of the attendant, aided by the force of her will, and the sense of control imparted by the movement of her muscles without the consent of her own volition, triumphed, and after a few sittings all opposition was overcome. After she had become somewhat accustomed to the mode of making the hand movements, the same course was begun with the feet. These were very cold, and livid up to the ankles, without the slightest indication of circulation. The ends of the toes were first treated. Considerable force was needed to overcome their contraction, and at first they returned at once to their flexed position. But each application found them less rigid, and the surface of the feet less sensitive. After half a dozen seances, I felt convinced that I could see a little evidence of a return of the blood to the superficial capillaries, and considered myself justified in announcing to her father that her improvement had begun.

I may remark just here, that in these cases of enfeebled muscles and perverse will, it is important in administering the acto-passive movements, first, never to direct a motion to be made to which there is any insuperable mechanical obstacle, and secondly, always to insist on the motion being made to the full extent indicated. If the patient voluntarily resists, that resistance must be abolutely overcome. Nothing so much aids in subjecting the will of the patient to that of the medical adviser and his assistants as a consciousness of powerlessness in his and their hands. If, on the other hand, the patient honestly strives to make the required motion, and has not sufficient strength to accomplish it fully, the masseur must aid in its completion. A skilled operator will do this so naturally and gently that the patient will not suspect that aid is being given, and, pleased with the success of his effort, will thus be stimulated to repeat it with increased vigor. This is a pious fraud, perhaps, but certainly one which may be regarded with lenience.

One of my first aims in the management of this case was to diminish the amount of morphia and of stimulus which she was taking, for I felt sure that the former was drying up all the secretions and paralyzing her vegetative life, while the latter substituted more nutritious food and destroyed the appetite for it The former was the more difficult to control, inasmuch as she invariably insisted on having the dose weighed out before her eyes, and the recurrence of pain as the influence of the drug wore off made her always alert to call for it at the end of the two hours I endeavored to combat its effects by the administration of atropia, but here I was foiled by a most extraordinary sensitiveness to the poisonous action of that drug The first dose of 1–120 gr produced truly alarming effects, and when, after reducing it to the 1–480 gr, I still found dilated pupils, dimness of vision, and scarlatinal rash, I concluded that it was not wise to attempt to overcome the intense dread of its effects which had taken possession of her I am obliged to confess that in order to accomplish my end, I found it necessary to tamper with the scales The amount was thus gradually reduced, at first without her knowledge, subsequently, when she became more amenable to reason, with her cooperation, until the use of the drug was entirely abandoned, and she came to look upon it with such horror that at her urgent request I abstained from ever again prescribing it for her

The *treatment was continued somewhat irregularly* for two months, when it was unavoidably interrupted by the serious illness of another member of the family, and was not resumed until the end of the following September, when I insisted on her being removed to the city in order that it might be carried out more effectively in all its details I now placed her in charge of one of my most competent masseuses as her nurse and attendant, and prescribed all the minutest details of her daily life, requiring everything to be done by the watch Under this regime her improvement was steady, though not rapid Her muscles gradually increased in volume, and her nerves in endurance She was able to bear both light and noise better, and the painful sensitiveness of the feet diminished

By the month of February, the contractions, which it will be remembered had held her shut up almost like a closed knife, had so far yielded that slight pressure would bring the feet to a right angle with the legs, and the flexion of the knees was so much reduced that I could apply a pair of steel knee-braces These I had put on every day and worn for a certain length of time, and as soon as she became sufficiently accustomed to the pressure, I placed her daily in the standing position, with her hands on my shoulders and a broad girth passed around her body and my own at the level of the hips, in order to maintain her erect with as little effort on her part as possible These attempts were at first followed by hystero-cataleptic attacks convulsions, unconsciousness, rigidity or hysterical screaming But these gradually wore off as the efforts were persisted in and the contractions relaxed

The following summer she had sufficiently recovered to be able to go to the mountains, and while there began to walk with the aid of her attendant, without the support of the knee braces Below is the schedule which I placed in the hands of her nurse on leaving, to show the manner in which her day was portioned out This was adhered to faithfully unless she was suffering in some unusual manner

DAILY PROGRAMME FOR MISS ——

Breakfast	8 30	to	9 00
Rest	9 00	"	9 30
Toilet	9 30	"	10 15
Rest	10 15	"	10 45
Bath	10 45	"	11 00
Rest	11 00	"	11 30
Dressing	11 30	"	12 00
Rest, Lunch	12 00	"	1 00
Movements	1 00	"	2 00
Rest	2 00	"	4 00
Dinner	4 00	"	5 00
Ride, visits, etc	5 00	"	7 00
Tea	7 00	"	7 30
Reading and amusement	7 30	"	9 30
Retiring	9 30	"	10 00
Taps	10 00		

The toilet after breakfast was that of the bowels, a daily enema being necessary This she had been in the habit of receiving on awakening in the morning, before taking food But considering that this was unnecessarily exhausting, I induced her to change the hour, which she did with great reluctance The bath included sitting in a shallow bath, slightly cool, and the use of a vaginal syringe The bath was at a temperature of 112° F on entering, and gradually cooled down to 80° F before leaving it, and was to be continued not longer than 15 nor less than 10 minutes Under the influence of abdominal massage, and movements of flexion and adduction of the thighs, her menses had returned during the spring, after a period of total cessation of about six years In order to stimulate this function and relieve dysmenorrhœa, as well as to calm nervous excitement and improve the circulation in the lower extremities, I used the spinal ice bag to the lumbar spine and upper part of the sacrum once every day for half an hour, ordinarily and twice a day before and during the menstrual epoch I believe that this simple method of treatment for such conditions is not sufficiently appreciated as it should be by the profession

As she was now able to be for a considerable part of the time in the upright posture, the lateral curvature of the spine, of which mention has been made, became a factor of considerable importance in her sum total of disabilities I therefore, in November, soon after her return from the mountains, applied an instrument with a strong ratchet movement to give support to the spine, and overcome the deformity as far as might be At this time she came to stay for the winter in my private hospital, in order to avail herself of the use of the machinery of my Treatment Hall, designed especially for giving appropriate exercises in this form of curvature She now improved rapidly in walking, and was soon able to take short walks out of doors

It is unnecessary to detail the case further Side issues were met by appropriate remedies as they pre sented themselves. Hæmorrhages, endometritis, uterine malposition, etc., needed much attention, but the general outcome was restoration to the duties of life, which she has since discharged with great faithfulness, and to the pleasures of society, which her naturally brilliant mind fitted her to adorn.

Now what was the efficient agent in this case in breaking up the chain of morbid processes, in promoting tissue-metamorphosis, in stimulating nutrition and consequently in making blood? Not *rest*, certainly, for that she had been taking *ad nauseum* for months and years before I saw her. Not *over feeding*, for I was never very urgent that she should take much more food than her appetite called for, and that was at no time large. No, it was simply so acting upon the fluids in the blood-vessels, the lymphatics, and the areolar lymph spaces by purely mechanical means as, first, to hasten the dislodgement of effete cell elements, and their absorption into the general circulation, thus creating a necessity on the part of the ultimate cells of the tissues operated on for more food, that is to say, appetite, next, to stimulate the capillaries to more vigorous action to supply this felt want of the tissues, then to arouse the muscular tissue to the performance of its double function of accelerating the blood and lymph currents, so necessary to wash away the detritus, and of carrying on that decomposition and recomposition of the blood which is essential to make it a vitalizing agent for glandular tissues, and finally to evoke the activity and restore the equilibrium of these glands themselves secretory and excretory, superficial and deep seated.

But while there is room to doubt whether a rapid increase of fat is ever an advantage, and whether any addition to the adipose element of the individual beyond his natural percentage of this tissue as compared with others, is not a positive injury, there can be no question that its excessive accumulation, whether all over the surface, in the abdominal walls, or in the omentum, is a calamity, and a grave one. Fat being a non-conductor, prevents, so I have thought, the internal fires from radiating their warmth to the integument, wherein reside the sensations of heat and cold. It is undoubtedly an admirable arrangement for the bear, protected on the one hand by his winter surtout of fur, and confined to the unchanging atmosphere of his close cave, and on the other entirely oblivious in his profound slumber, of all external changes and superficial sensations, to have his fires thus banked up and slowly fed for months together, and thus maintain the temperature of his interior somewhat at the expense of the surface, but the plan works by no means so well in the non-hibernating human being. In my observation it is not true that fat people suffer less from cold than thin people. On the contrary, it has seemed to me that the surface of the skin overlying large deposits of adipose tissue is apt to be both objectively cool, imparting less sense of warmth to the touch, and subjectively chilly, the individual requiring more clothing to make her comfortable than another who is less liberally covered by nature. That, on the other hand, the obese suffer more from heat than their thin neighbors, no one will for a moment deny. Aeration of the surface does not appear to take place so readily with them, radiation of body heat is slower, respiration is more laborious, the heart is compelled to work harder in order to distribute the blood over so great an increase of area, locomotion is greatly impeded, and the whole expression is one of anxiety.

> "Oh! that this too, too solid flesh would melt!"

is a sentiment often to be read in the faces of such sufferers. To this class belongs the following case.

On June 23, 1875, I was waited upon by a lady, residing a few miles out of Philadelphia, with the request that I would call and see her daughter, supposed to be suffering from a spinal affection which rendered her quite helpless. She described her as able to walk with great difficulty, partly from loss of power in the legs and partly from her great weight although she was only seventeen years old. Once a day, supported by two persons, she was helped down stairs, and then wheeled out on to the piazza, when the weather would permit, and there sat to get the air. This was the only exercise she was capable of taking. She suffered much from pain in the back. Menstruation was not very painful, but profuse, and there was considerable leucorrhœa. I at once informed her mother that my belief was that the true seat of her daughter's disease was the womb, and not the spine, and that I could only consent to call on her with the understanding that I was to be allowed to make a complete examination of that organ, both digital and with the speculum. This permission being somewhat reluctantly granted, I saw the patient on the afternoon of the same day.

I found a leukophlegmatic girl, of large frame, decidedly above the average height, and enormously fat. Her arm was larger around than the thigh of an ordinary adult woman, and the accumulation of fat upon the abdomen was immense. Some idea of her size may be formed from the fact that when, some months later, I walked with her in the streets of Philadelphia, her weight having been then greatly reduced, she was an object of remark to all passers by. The spinal muscles were quite unequal to the task of holding her erect in sitting, and were sensitive in consequence of the great strain which such efforts put upon them, but there was no spinal rigidity or other evidence of spinal disease, beyond a slight lateral curvature, which I considered of no account in estimating her case. There was no paresis and no contraction of the lower extremities, simply excessive debility. She lost breath on the slightest exertion, and the heart's action was weak and labored. She was pallid, the lips were pale, and the muscles were soft and flabby.

The vaginal examination disclosed a womb of about double the natural size, retroverted and partially prolapsed, and with a very patulous linear os of about an inch in length, from which exuded freely a thick albuminous discharge. There was very little tenderness of the uterus on pressure, and little sensitiveness on the introduction of the sound, but considerable ovarian tenderness. I at once instituted a course of local treatment, the main features of which were the application of fuming nitric acid to the fundus, reposition by the sound, and support of the replaced organ by a Hodge's lever pessary, which was eventually entirely successful in restoring the organ to a normal condition But our concern now is with the disposal of the immense mass of hydro carbon which was evidently an insuperable obstacle to her ever again resuming her old habits of activity I placed her, of course, on a restricted diet, limiting her closely in sugars, starches and fats, but endeavoring to allow her sufficient variety not to deprive eating of all zest I also gave her the following prescription, which she took faithfully, with occasional intervals It will be observed that the amount of liquor potassæ given was very large This could only be administered by diluting it generously

℞ Ext fuci vesiculosi fluid
Liq potassæ aa f℥ij
Aq calcis f℥xij M
Sig A tablespoonful, in a tumbler of water thrice daily, gradually increased to two tablespoonfuls

But what I most relied on to effect the absorption of the fat was the daily application of massage, and in prescribing the mode in which it was to be given I was guided by the following principles The first object was to stimulate the great emunctories, and in this way provide an outlet for the fatty detritus which I proposed to send on to them later First among these I considered the liver and the intestinal epithelium, the former, not indeed so much for the amount of excrementitious matter which it is capable of throwing out of the system as for the usefulness of its secretion as a scavenger in sweeping away the *debris* of epithelial desquamation, uncovering the outlets of the excretory ducts and stimulating the renewal of their cells Vigorous massage of the abdomen was therefore the first indication To have begun with movements of the extremities, as in the previous case, would have been to force a turbulent and muddy stream onwards to a reservoir with insufficient outlets, and would only have resulted in damming up the effete current, damaging the sluice gates and leaving morbid deposits in the glands of the abdomen But by stimulating the nerve centres of the abdominal cavity, by means of the reflex and electrical influences of rapid superficial massage and following this up with deep and forcible kneading, the excretions of the intestinal mucous membrane were first augmented, and the peristaltic action was then accelerated to carry them off

Strong percussion over the liver with the full palm of the hand, known as *liver clapping*, then followed, for the purpose at once of increasing the activity of the hepatic secretion and of mechanically hurrying the bile through the gall duct and out into the intestinal sewer Then, in order to bring the re-inforcing power of the spinal chord to the aid of the splanchnic and sympathetic nerves, rapid percussion of the spine with the last phalanges of the fingers was resorted to, beginning at the base of the brain and continuing down to the sacrum, giving especial attention, however, to the lower half of the dorsal column This was followed by a stroking of the spine and back generally, in order to soothe any irritation of the general nervous system that might have been produced, and the prescription was concluded by a few vigorous duplicated flexions and extensions of the thighs, the patient and the masseuse alternately moving and resisting, with the view of compelling the abdominal muscles to contract strongly, and also, by the action of the psoas and iliacus muscles, to stimulate the pelvic circulation and overcome the atony of the bowels

As it was not convenient for her to be moved into the city at that time, her maid, a very intelligent young woman, was sent into my treatment hall to take a few lessons of my manipulator, and as I visited the patient once or twice a week I was enabled to superintend the massage, and correct her defects of manipulation Although her method was crude, and far from satisfactory, it was so far effective that in six months, that is, from the commencement of the treatment, the patient had lost probably one third of her weight and was able to walk with some comfort

Anxious, however, for more rapid improvement she now moved into the city, and after a week of daily treatment by an experienced masseuse, was able to walk with assistance from her boarding place to the treatment hall, a distance of one square, or a twelfth of a mile By means of apparatus I was then able to give her more vigorous movements than any she had yet taken, especially rapid and powerful vibrations of the extremities, abdomen and liver Her great weight, however, being still an impediment to locomotion, and the fatigue which it caused, a drain on her nerve force, I thought it wise to relieve the spinal muscles from strain by affording them mechanical support The form which appeared to me most suitable to her case was a Banning's brace, with an extra large abdominal supporter At the same time I substituted for the Hodge pessary the retro uterine prop of the Banning brace, having its point of support external to the body from the abdominal plate This combined support at once enabled her to move with greater ease and freedom and to remain longer in the erect posture Her spirits, which had been much depressed, now began to rise, and her color gradually became more vivid and natural

The Movement Cure was continued for three months, when she returned to her home, lightened in heart as well as body, and able to walk half a mile without fatigue I continued to see her at long intervals, in order to maintain the adjustment of her mechanical appliances, and found her weight constantly diminishing and her strength correspondingly increasing There were occasional drawbacks to the latter from a prolapsus ani with hæmorrhages, which, however, yielded to astringents and appropriate support in treatment

Some time during the following spring I was surprised to have her come into my office with the announcement that she had walked in from her home in the country, a distance of six miles In fact so active was she that I was obliged to confiscate her pedometer in order to impress upon her the fact that there was a limit to her endurance, and that she was in danger of bringing on her old troubles again. A walk of ten miles she regarded as a very moderate effort. Her figure soon became as remarkable for its lightness and grace as it had before been for its shapeless and unwieldly immensity.

COLO-PROCTITIS TREATED BY HOT WATER DOUCHE AND DILATATION OR DIVISION OF THE SPHINCTERS ANI.[1]

BY ALEX. Y. P. GARNETT, M.D.,

EMERITUS PROFESSOR OF CLINICAL MEDICINE IN THE NATIONAL MEDICAL COLLEGE, WASHINGTON, D. C.

In presenting the following cases intended to illustrate the special merit claimed for the plan of treatment recommended, I fully recognize the importance of confining myself to that particular form of disease which the clinical history of each case will demonstrate, and to differentiate it from those more formidable and graver affections such as deep-seated corroding ulcers, the various forms of stricture, and varieties of cancer which are met with in rectal diseases. Whilst the disease under consideration is usually of long standing, or chronic in its character, it is a pure non-malignant inflammation, confining itself almost entirely to the mucous or sub-mucous tissues, and resulting in some cases in small superficial necrobiotic ulcerations found just within the external sphincters; that such cases are often mistaken for simple dysentery and unwisely treated by injudicious medication as such, I have no doubt.

Case 1.—In the fall of 1875 I was requested to take charge of a man about 30 years of age, affected, as he stated, with chronic diarrhœa. He informed me that he had been suffering with the disease for more than two years; that prior to the appearance of this trouble he had enjoyed excellent health, and for the last fifteen years been occupied on board a small fishing boat plying between Washington and the Chesapeake bay, engaged in the oyster trade. His family record showed no taint of strumous or tubercular disease. Upon a careful examination of this man, I found that his disease consisted in a chronic catarrh of the large intestine, extending into and embracing a greater portion of the mucous lining of the rectum. I became satisfied, from a careful manipulation, that the disease did not embrace the ascending colon, but seemed to commence in its transverse portion and proceed downward. At the time of my first seeing him there was much tenderness along the bowel, almost constant pain, always greatly augmented by defecation, usually passing of large quantities of mucus in long bands, sometimes tinged with blood, at other times there would be muco-sanguineous stools mixed with small quantities of fæcal matter. There had been frequent discharges of clotted blood at various times, exhibiting the appearance of pure hæmorrhage. The history given me of the treatment which had been pursued by the different medical gentlemen whom he had consulted, embraced most of the usual remedies employed in chronic diarrhœa and dysentery. It is not necessary to enumerate them. I directed a suspension of all medication by the mouth, confined the man exclusively to hot milk diet, and ordered an enema consisting of four ounces of strong decoction of ipecacuanha root, and twenty drops of tincture opii, to be thrown up the bowel as hot as possible, and repeated every eight hours, to be kept in bed and allowed nothing else but the hot milk as nourishment. The enemata not to be used after midnight until eight o'clock the following morning. This practice was continued for two days, when the tincture opii was reduced one-half, ten drops being employed every eight hours instead of twenty.

The patient seemed to improve manifestly from the second day after he was placed under this treatment, and continued to do so until the sixth day, when he had a return of hæmorrhage, discharging about four ounces of clotted blood. Suspecting the presence of ulcers within the rectum, a careful exploration was made by means of the speculum, but no ulcer discovered; I found, however, a proliferation, or thickening of the mucous membrane just within the sphincters, and extending for two inches or more up within the bowel. This morbid growth consisted of exuberant villosities, exceedingly vascular and soft, and feeling to the touch like thick velvet. A very close inspection failed to disclose the presence of fissures. I recollected having treated a similar case, which came under my care many years previously, by the application of nitrate of silver first, and subsequently of nitric acid, which, however, had not resulted in a cure. I determined, therefore, to try the plan of dilating the sphincter freely by pressure with the thumbs and tearing up and squeezing out the blood of the villous vegetations, and thus destroy them by cutting off the abnormal blood supply, at the same time continuing to use the hot water injections, consisting now of the solution of boracic acid, instead of the decoction of ipecac, adding the tincture opii only to the one used at bed hour, in the quantity of twenty-five drops. Injections were ordered to be administered every three hours during the day up to twelve at night. Continuing this plan of treatment and confining my patient to the hot milk diet, with an occasional slice of stale bread, I had the satisfaction of discharging him perfectly cured at the end of fifteen days.

Case 2.—Two years after the above case, in the summer of 1877, a married lady, the mother of three children, came under my care suffering with severe proctitis associated with several small but exceedingly painful fissures. This lady had suffered for many months with attacks of dysentery, which had been temporarily relieved by medical treatment, but invariably returned without any immediate exciting cause that she could discover. Latterly she had experienced several hæmorrhages from the rectum, and found that all efforts at defecation were attended with such exquisite pain that it was almost impossible for her to accomplish that act. The pain had within a few days become persistent and unceasing, rendering sleep impossible, and her existence miserable in the extreme. The dejections had for several months prior to this condition of affairs consisted largely of mucus, sometimes, but not always, tinged with blood It was impossible, in consequence of the extreme tenderness of the parts, to make a speculum examination, or even introduce my finger without first placing her under the influence of some anæsthetic, so I determined to etherize her the following day, and divide the external sphincter at once, relying upon the hot water injections for subsequent treatment

---

[1] Read in the Section on Surgery at the Thirty-Sixth Annual Meeting of the American Medical Association.

The operation was performed on the following day, as determined upon, the knife being first used, followed by stretching with the thumbs, and a thorough dilatation obtained, a half pint of hot water being thrown into the bowels every four hours during the day, and kept up for two days The patient expressed herself as greatly relieved after the operation, and enjoyed, for the first time for several nights, a refreshing sleep She was also placed upon hot milk diet with stale bread for a week, and the hot water douches continued every six hours for the same period At the end of eight days she was discharged cured I had an opportunity of seeing this lady quite frequently for many years subsequently, and enjoyed the satisfaction of knowing that my success in this case had been complete

Case 3—Four years ago I was consulted by a young lady twenty years of age, of delicate appearance, who informed me that she had been subject for six years to habitual constipation, with alternations of diarrhœa That two years before she had submitted to an operation for hæmorrhoids, from which she had suffered for more than a year previously, and experienced occasional losses of blood Although the hæmorrhoids had been removed, greatly to her disappointment she still had frequent hæmorrhages from the bowels, and at all times pain and discharges of large quantities of mucus, frequent attacks of diarrhœa, but generally constipated A careful examination of this case disclosed a contracted anus, sphincters firmly closed and resisting the introduction of the finger, no appearance or condition, however, indicating malignant disease, but presenting what I shall call a *rectismus* The lining membrane of the rectum was found thickened and villous, and exceedingly vascular, but not very sensitive beyond the sphincters External manipulation over the abdomen produced some pain along the descending colon This lady was required to go to bed and to commence at once the hot water douches, half pint every four hours, every alternate one containing two scruples of boracic acid and ten minims of tincture opii

On the third day after confining her to bed, I placed her under the effects of chloroform and operated by dilating the sphincters, entirely paralyzing, for the time, that muscle This was immediately followed by the application of nitric acid diluted one-half, to the inner surface of the rectum some distance beyond the sphincters The subsequent treatment consisted simply of the milk diet, hot douches with solution of boracic acid, anodynes for the first three nights, and internal administration of lime water, half an ounce three times a day in the milk At the expiration of two weeks she had so far recovered as to be able to leave her house, and experienced no difficulty or pain in the evacuation of the bowels This patient continued to enjoy entire freedom from any trouble, except more or less torpor of the bowels, for nearly two years, when I was again consulted for a return of the hæmorrhage of the rectum following defecation, and attended with pain An examination with the speculum showed the presence of three ragged ulcers about the size of a split pea, located just within the sphincter These were speedily destroyed, and the parts healed in a few days by three applications of pure nitric acid She has now been under my observation for eighteen months, and has had no return of the diarrhœa, or other evidence of intestinal disease

Case 4—In the latter part of May, 1883, an elderly lady, sixty years of age, the mother of several grown children, stout and healthy in appearance, consulted me for chronic intestinal catarrh, with which she reported she had been suffering for more than a year I saw her occasionally during the month of June, and directed her to use injections of hot water and be placed under a rigid system of diet, using but little medicine, as I was told that she had been pretty thoroughly medicated before consulting me About the 20th of June, she reported that she had suffered latterly with severe pains about the rectum during defecation, and at all times more or less uneasiness at that point This had been steadily increasing, and had finally become exceedingly distressing to her, and been attended with discharges of blood An exploration of the anus and rectum disclosed the presence of an oblong ulcer just within the margin of the anus, and extending for one inch up in the bowel, about one third of an inch wide and four or five lines deep, with smooth edges and base The surrounding tissues were soft and natural to the touch and in appearance, except the usual velvety feeling of the mucous membrane above the sphincter I was greatly relieved to find the condition of things that dispelled all apprehension of malignant disease, which I thought the clinical history of the case with the age of the patient, to some extent warranted The free application of nitric acid was made to the ulcer, hot water douches continued through the day, and a soft anodyne suppository at night was used Finding at the end of ten days that the use of caustics, anodynes and astringent lotions and suppositories, in conjunction with the foregoing treatment, had utterly failed, I resolved to divide the sphincters through the bottom of the ulcer, practice dilatation, and continue irrigation of the bowels with hot boracic acid lotion

On the 6th of July, assisted by Dr Acker, of this city, who administered chloroform, I made a partial division of the sphincter with a bistoury, and completed the dilatation by pressure with the two thumbs A large pledget of patent lint saturated with carbolized oil, was inserted and allowed to remain for eighteen hours The hæmorrhage was quite insignificant, but a large quantity of almost pure mucus was thrown off by the bowels A full anodyne was ordered for the night, and the patient put upon hot milk as a diet On the day following the lint was removed, and an application of an unguent, composed of sulphate of zinc, morphine and vaseline was made In this, as in all the foregoing cases operated upon, the bowels were kept inactive by the use of opiates for four days

This patient was left in charge of Dr Acker a few days after the operation, and not seen by me again for four weeks She continued, however, to use an abstemious diet, and to persist with the hot douche for some weeks On my return to the city she had so far improved as to be able to walk out without inconvenience, and suffered no pain in evacuating the bowels, had a good appetite, and pronounced herself as almost entirely cured She has since that date been under my observation, and seems perfectly well, having had no return of the diarrhœa, or other indications of her former disease

Case 5—In October last, I was requested to see a gentleman 52 years of age, a lawyer by profession, of sedentary pursuits during the last fifteen years of his life, regular and temperate in his habits He informed me that he had for several years, suffered from a slight bronchitis, attended with a troublesome cough, but no expectoration That eighteen months before, he began to experience some discomfort about the rectum after defecation, which had gone on increasing to actual pain, and that for the past six months there had been an occasional discharge of blood after evacuations of the bowels Contemporaneously with this feeling of malaise, he had been attacked with diarrhœa which had continued at intervals up to the time of his consulting me He had also undergone during this period a regular system of medication by two different physicians, who regarded his case as a simple catarrh of the large intestine, but that they had failed to afford him any permanent relief Upon making a careful examination of the rectum, I found a superficial fistula about one and one half inches deep, two small fissures at the anal orifice, and the lining membrane of the rectum congested and thickened A laxative of sulphur and Rochelle salts was administered, and instructions given that he should use hot water douches every four hours daily I explained the necessity to him of operating for the fistula, with the probability of an additional operation for dilating the sphincters He determined to try for a week the plan of irrigating with hot water alone, and abandon all internal remedies At the end of ten days I received a note requesting me to call and see him He had experienced much relief from the hot douches during the intervals of intestinal quiet, but at each evacuation the same pain was produced, his diarrhœa also had continued to recur, and he had finally concluded to submit to any plan of treatment which I might determine to pursue

On the day following, assisted by Dr Acker, who administered a mixture of chloroform and ether, the anæsthetic I usually prefer, I first divided the superficial fistula which extended just within the margin of the anus and dilated freely and forcibly the sphincters with the thumbs, packing the rectum for a few inches with a tent made of fine old linen, and well lubricated with vaseline An opiate was directed to be given four hours after the effects of the ether had worn off The next day I removed the pledget of linen and used the hot douche, repeating the opiate at night and directing a very light diet On the third day a laxative was given, which operated without occasioning much pain No further treatment was praticed in this case than the continued use of the hot water irrigation and a moderate diet At the end of eight days he was sufficiently well to resume his ordinary vocations, and pass from under my observation till the following January, when I met him on the street and received the gratifying intelligence that he had increased ten pounds in weight, and had experienced no return whatever or any symptom of his old trouble

Recognizing the important part played as etiological factors in the production of this disease by the muscular adjuncts of the rectum, and as one of the chief obstacles to be encountered in accomplishing its cure, it is important that we should bear in mind the anatomical relations of this organ to those muscles The extensive attachments of the levatores ani with its fibres converging to a central raphe encircling the bowel, and exercising a controlling power over its various motions, its contractions and its dilatations, and to a certain extent diminishing or increasing thereby the vascular supply of its coats, the external and internal sphincters presiding to a large extent over the act of defecation, maintaining under certain conditions by a tonic or spasmodic contraction of their muscular fibres, an abnormal blood supply to the bowel above, resulting in proliferation of tissue and necrotic areas of mucous membrane, the rich supply of nerves and blood vessels, and especially the particular distribution of rectal veins, constitute a vast field for investigation by the pathologist as well as an interesting and useful subject for observation and instruction to the general practioner

---

URETHRAL CALCULI[1]

BY JOSEPH RANSOHOFF, M D, F R C S, Eng,

PROFESSOR OF DESCRIPTIVE ANATOMY AND CLINICAL SURGERY
IN THE MEDICAL COLLEGE OF OHIO

The clinical pictures presented by foreign bodies in the male urethra are so varied that every case is likely to display special features of interest which will vary according to the form, seat of lodgment, and source of the foreign body In most cases this is a calculus which has descended from the bladder or kidneys, or in rarer cases, such as prostatic disease or stricture, has developed in loco In the vast majority of cases, the stone is single In the following case, for the "previous history" of which I am indebted to Dr J A Brown, of Germantown, two stones were found, which varied as much in size as in the symptoms to which they gave rise

J L, æt 37, farmer, had always enjoyed good health until sixteen years ago, when he suddenly suffered from severe pain in the urethra, associated with hæmorrhage and retention of urine, for the relief of which the catheter was used After continuing for a few weeks these symptoms subsided, and the patient

---

[1] Read before the Ohio State Medical Society June 4 1885

[illegible] to return to his work Since this attack he has always been in good health except on four or five occasions when a condition such as that just described recurred In the middle of January a similar attack supervened, for the relief of which the patient himself resorted to a soft catheter Only because febrile complications and rigors manifested themselves was Dr Brown sent for He recognized a swelling of the size of an orange just behind the peno scrotal angle, and when he introduced a silver catheter into the urethra a calculus was distinctly recognized All efforts to cause the expulsion of the foreign body were futile, attempts to extract it were equally unsuccessful It was therefore pushed backwards towards the bladder

I saw the patient for the first time on the 11th of February His temperature in the evening was 104°, and his pulse 122 He suffered excruciating pain, and could only urinate by means of the smallest Nélaton catheter Behind the peno scrotal angle the tumor already mentioned was recognized Notwithstanding its tenseness, a deep fluctuation was discernible This was unquestionably a peri urethral abscess, the result of an impacted calculus It impeded the passage of a solid instrument, and if opened, a thorough exploration of the urethra and bladder would be possible A free incision was therefore made and a half teacupful of matter evacuated A large sound could at once be passed into the deeper portion of the urethra where, just beyond the triangular ligament, it encountered an obstacle which imparted the peculiar grating sensation produced by contact with a calculus With the finger in the rectum a hard body of the size of a walnut could be felt underneath the anterior wall, just within the anus When this was pressed upon from within it formed a distinct prominence in the perineum Above the prominence made by the stone the prostate could be felt of normal size and consistence

After the abscess was opened, the febrile symptoms subsided so rapidly that on the 18th of February the stone could be removed I chose for this purpose the median operation Although this case was admirably suited for cutting in the gripe, I preferred the use of the lithotomy staff When the membranous portion of the urethra was opened the two calculi, which I beg to present, were removed The larger stone, weighing 265 grains, presents a smooth, rounded surface, is somewhat egg shaped, and measures 1¼ inches in length by 1 inch in width and thickness On section, it presents a central cavity and a large number of concentric rings According to Prof Fennel it is composed principally of the phosphate of lime, traces of the oxalate of lime and phosphate of magnesium being likewise present The second stone is very much smaller It weighs but 5 grains, and presents a very uneven surface From its appearance, it evidently resulted from the confluence of four or five smaller stones Although the bladder was carefully examined through the perineal wound, no other calculus was found On the second day after the operation, the patient passed his urine per *vias naturales*, and he progressed rapidly and uninterruptedly toward convalescence

The case which I have taken the liberty to report presents certain features of interest A glance at the two calculi will show that it was almost impossible for the large stone to have become impacted at the site of the abscess which was opened a week before the formal operation It is likewise evident that the smaller and more roughened stone was solely responsible for the severe symptoms detailed in the clinical history Just how long the larger calculus had been retained in the membranous portion of the urethra cannot be determined According to Dr Brown and a distinguished surgeon of Dayton, it was found in the bladder two years before the final operation If this be accepted, it developed with marvelous rapidity, since a stone of half its dimensions could hardly have been passed through the prostatic portion of the urethra Nevertheless even very large calculi are occasionally expelled from the bladder Thus, J S Dunning (JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, March 21, 1885) reports the case of a man 62 years of age in whom a stone as large as a hickory nut was expelled from the bladder and lodged behind the glans Urinary fistulæ developed behind the stone, which was removed seven months after its impaction When crushed it weighed 300 grains On the other hand it seems more probable that the larger calculus presented to day was lodged in the membranous portion for a considerable number of years, gradually receiving new deposits Indeed there is no limit to the time during which a stone may remain in the urethra without producing severe symptoms Fleury (*Bull de la Soc de Chir*, vii, 631) reports a case of urethral calculus, in the spongy portion, of twenty years' growth He had detected the stone fifteen years before the operation, which was rendered imperative by retention of urine In 1862, Mr Haynes Walton presented a stone to the Pathological Society of London It was removed from the perineum of a man who had probably carried it for fifty years without suffering greatly from its presence It finally produced retention and extravasation of urine, but its removal failed to save the life of the patient It measured 2¼ inches by 1 inch (Trans Path Soc, Vol xiii, 1862) From the specimen presented and the cases briefly referred to it will be seen that urethral calculi sometimes assume enormous proportions, either by dilatation of the urethra or the formation of a diverticulum Voillemier saw one the size of a hen's egg In the *Indian Medical Gazette* for 1883 (JOURNAL AMERICAN MEDICAL ASSOCIATION, 1883, p 145) is reported the case of a calculus lodged at the peno scrotal angle, forming a tumor as large as an orange It weighed 980 grains In 1878 R Parker removed a prostatic calculus weighing 1⅝ ounces by rectal incision A second but smaller calculus was found In this case a slight recto urethral fistula remained (*British Medical Journal*, 1878, Vol i, p 85

The case presented likewise impresses the fact that urethral calculi are not infrequently multiple, being associated with one or more stones in either the urethra or bladder Civiale reports the case of a man from whom 220 calculi were extracted from a pouch in the perineum In the museum of St Bartholomew Hospital is a part of 149 calculi taken from the middle of the spongy portion of the urethra

It is particularly in children that urethral calculi present certain features of interest, since in them the thin impaction is often followed by retention and infiltration of urine When these conditions exist, the usual causes of retention in adults, stricture and prostatic enlargement, can be excluded, and only trauma or impaction of a calculus remain as exciting causes Of 14 cases of impacted urethral calculus collected by Gault in 1862, only 3 occurred in adults Of the 11 which occurred in children, 8 were under 5 years of age, and in only one of the 11 cases was the stone lodged in the pendulous portion of the urethra, where it could be removed with the forceps In the other 10 it was impacted in the perineum, and in 5 of these urinary infiltration was present In these 10 the stone was removed by section, and in two of the cases in which infiltration existed, death followed

The treatment of urethral calculi presents but few points worthy of discussion, since it is evident that their extraction is always indicated When they are situated in the anterior portion of the urethra, where they can be reached with forceps or scoop, they are to be removed by either of these methods It should be remembered, however, that extensive manipulation is fraught with danger, since the impaction of a calculus in the urethra and efforts to remove it have been followed by the development of stricture (Sir E Home) Although the crushing of urethral calculi was already described by Albucasis as a formal operation, it has never, for obvious reasons, been generally adopted by surgeons The dangers attending it are considered of sufficient gravity to exclude it from recognized methods of treatment except in stones that are very friable When the stone is small and situated in the deeper portion of the urethra, it can often, by means of a large steel sound, be returned to the bladder, whence it should at once be removed by litholopaxy By far the safest method of treating urethral calculi is that by urethrotomy, and it should be resorted to as soon as the simpler methods already alluded to have been tried without success The dangers of the operation *per se* are scarcely worth considering, since important parts are not divided The only unpleasant consequences that occasionally follow it are urinary infiltration and fistula Neither of these complications is to be feared, however, if the operation be made early, and if the precaution be taken to use the catheter at regular intervals during the first three or four days following it

---

GEOGRAPHICAL PATHOLOGY OF CONSUMPTION[1]

BY G W McCASKEY, A M , M D ,

PROFESSOR OF DISEASES OF THE THROAT AND CHEST, FT WAYNE COLLEGE OF MEDICINE FT WAYNE IND

II

Hygrometric Conditions —The relative humidity of the atmosphere has been regarded as an important factor in relation to phthisis It would seem, indeed, that the degree of saturation of the air with moisture must have a very decided influence upon the progress of pulmonary tuberculosis In accordance, therefore, with the plan outlined in the first paper, its bearing upon the prevalence of consumption will be studied in a very general manner

The annual rainfall has been taken as a standard in estimating the comparative humidity of different regions This standard has been adopted, notwithstanding the well known fact that it is not always correct, the effect of a large rainfall being modified by the porosity and drainage of the soil, and perhaps other conditions A large annual rainfall is so constantly associated with a high degree of humidity, however, and *vice versa*, that it will serve perfectly well as a basis of comparison The exceptions are too few to materially modify the result

We find, as we pass southward along the Atlantic coast, that the annual rainfall steadily increases until it becomes in Florida about double that of Maine Inversely the death-rate from consumption just as steadily decreases, until in Florida it becomes (in 1880) precisely one-half that of Maine But these facts, which seem so conclusive, are opposed by others of scarcely less importance For example, the region comprising New Mexico, Arizona, Colorado, Utah, Nevada, and Wyoming has an annual rainfall of from eight to sixteen inches—the lowest of any part of the United States The mortality from consumption for the entire group is also lower than for any state or territory not included in it This low consumptive death rate is not due to the general healthfulness of the region, but is rather in spite of the fact that the death rate from all causes is greater than the average for the United States

Again, in the region comprising Kansas, Nebraska, Iowa, Wisconsin and Minnesota, the annual rainfall is nearly three times as great as in the last named region The death rate from consumption is also nearly twice as great And this, notwithstanding the fact that the death rate from all causes is 2 6 per thousand less In other words, the hazard of dying of consumption is twice as great, although the general risk is about 16 per cent less

In the interior counties of Oregon the rainfall is 12 to 20 inches, and the deaths from consumption are 9 6 per cent of all deaths The coast counties have an annual rainfall of 50 to 70 inches, and the deaths from consumption are 12 8 per cent of all deaths In Washington Territory the interior counties have an annual rainfall of 12 to 16 inches, 12 6 per cent of all deaths are due to consumption The coast counties have a rainfall of 44 to 80 inches, 13 7 per cent of all deaths are due to consumption In southern California the annual rainfall is 12 to 16 inches, consumption is very rare In the infected region north of San Francisco the rainfall is 20 to 36 inches

Clearly, no constant relation can be traced between certain hyetal conditions and the death-rate from consumption, for, aside from minor discrepancies, which could easily be multiplied, in the two regions where it is less than in any other part of the United States, viz the Gulf States and the Colorado region above referred to, the annual rainfall is respectively the greatest and the least—being as high as eighty inches in the former, and as low as eight inches in the latter If any general law can be formulated regarding the influence of certain hygrometric conditions upon the progress of consumption, it can only be done while keeping in view the associated temperature These two factors cannot, of course, be entirely separated When considered together it will be found that, in the United States, a low temperature and a considerable degree of humidity is uniformly unfavorable We do not have to look far for an explanation of this fact A damp, cold atmosphere, which would be the necessary result, is the one above all others most likely to induce lowered vitality and internal congestions Such a combination is found in New England, and with what result all are familiar These internal congestions will always occur by preference in tissues where, as in tubercular deposits, the blood vessels are either obstructed or obliterated Every such disturbance will hasten the pathological process, hitherto slumbering, perhaps, in comparative quiet Its activity may continue or rapidly increase long after the cause has ceased to act And thus it is a matter of too common observation that a patient who might otherwise have lived in a fair state of health for years, or perhaps recovered, sinks rapidly into the grave

With a higher temperature the degree of moisture would seem to be of less importance Jaccoud says that the desirable limits are to be found between 70 and 80 hygrometric degrees, which is certainly a rather moist atmosphere With a higher temperature, he says, the dryness of the atmosphere promotes irritation of the respiratory mucous membrane, which is increased by the concentration of the normal and pathological liquids, induced by the rapid evaporation from the surface So far as mild or warm climates are concerned there seems to be no statistical or rational support for the view that dryness of the atmosphere is a *sine qua non* or even at all desirable for consumptives, or that moisture tends to promote the development of the disease

The question of soil moisture ought to be considered apart from atmospheric conditions This would, of course, be impracticable over large areas Dr Buchanan's investigations seem to show that thorough drainage lessens the mortality from phthisis In the table to which I have access, no reference is made to temperature or humidity, a serious omission in the study of a limited area The tables, moreover, show that along with the lessened death rate from consumption there was also a diminished death rate from most diseases—notably of typhoid fever and ague This result certainly ought not to have been, as Dr Andrews (Lumleian Lectures, *Lancet*, 1884) says it was unexpected at that time There is certainly reason for believing that the lessened mortality from consumption, as well as the like result in typhoid fever, diarrhœa, etc , was in large part if not entirely due to the improved sanitary conditions implied by thorough drainage of surface water Unsanitary influences are doubtless quite as potent for harm in phthisis as in other diseases In Salisbury, for example, the reduction in phthisis mortality was 49 per cent , while the reduction in typhoid fever mortality was 75 per cent , and of mortality from diarrhœa 60 per cent With a single exception (Rugby) the decrease in the mortality from phthisis, after drainage, was exceeded by the decrease in the mortality from either typhoid fever or diarrhœa, which shows that dampness of soil has more influence upon these diseases than upon phthisis

It is easy to anticipate the probable effect of dampness of soil upon the debilitated subject of a caco plastic deposit like tubercle The removal of this condition by drainage might render the prolonged existence of many patients possible, who would have succumbed but for this improved condition This is all explainable without assuming a special relation between phthisis and soil moisture, farther than is implied in the general unhygienic influence of the latter condition

Coast Influences —It has been asserted by Dr Flint and others that consumption is more prevalent upon the sea coast than inland In Maine this statement is correct, the coast counties having a much larger consumption mortality than the inland counties New Jersey has also a higher death rate than Pennsylvania, and Virginia than West Virginia On the Pacific coast the same relations also obtain between the consumption mortality of the coast and inland counties of Oregon and Washington Territories Returning to the Atlantic coast, we find that below Virginia the coast States have a much lower death rate from consumption than any of the interior States adjoining them These States have, in fact, collectively and individually a lower death rate from consumption than any other State east of the Mississippi river, except Wisconsin

A notable exception to the general immunity from consumption of the South Atlantic and Gulf Coast States occurs in Southern Louisiana, where 25 per cent of all deaths are due to this disease, as against 7 2 per cent in the northern, or inland, portion of the State This disparity must be due to some local conditions independent of proximity to the Gulf Coast, and can not weigh, unless it be as an exception to the rule, against the facts obtained from the extensive coast line above this region The percentage of deaths from consumption to all deaths in the interior or northern portion of the State bears a very close resemblance to that of the remaining Gulf and South Atlantic States, thus showing that the southern portion, where the mortality from this disease is more than tripled, is anomalous, and subjected to exceptional influences In the very next State, Texas, the mortality percentages are reversed, being 10 per cent for the coast, and 11 1 per cent for the interior counties

In California, the section just north of San Francisco Bay is one of the worst infected districts in the county, while Southern California is so free from consumption that it is resorted to by victims of the disease in the hope of benefit or cure Yet both are coast regions, kissed by breezes from the same ocean There are no available data at hand for mak ing a calculation of the percentages for these two sections of California. It is rather suggestive to note that on both the Atlantic and Pacific coasts the region of greatest immunity from phthisis is south, with its higher temperature, and the region of its greatest prevalence, north, with its lower temperature. The moisture laden air from the sea would have a very different effect, according as it was associated with a high or low temperature, in accordance with the views already expressed. It is possible that this may, in part, account for the varying mortalities from consumption found on different parts of the same coast line. This explanation seems entirely adequate so far as the main facts regarding the Atlantic coast are concerned, but may appear insufficient to account for the facts in California. It will be remembered, however, that this State has a very extensive coast-line. The mean annual temperature of San Francisco is five degrees lower than that of San Diego, a range including less than two thirds of the State. This difference is great enough to have a marked influence, though of course not great enough to account for the difference in mortality from consumption, which is very wide.

But whether this view be at all correct or not, the facts cited are certainly sufficient to warrant the assertion that consumption is not, with anything like uniformity, more prevalent on the sea coast than inland.

CHRONIC NECROSIS OF FIBULA AND TIBIA, OF TEN YEARS DURATION, AMPUTATION AT LOWER THIRD OF FEMUR, RE-AMPUTATION AT UPPER THIRD, RECOVERY.

BY R. H. JENKINS, M. D.,

OF HOGANSVILLE, GA.

The following case is deemed worthy to be placed on record on account of its interest from a surgical point of view, and also on account of its rather unusual course and termination.

Fred W., colored, æt. 15, parents had never had syphilis or struma. He was considered a healthy child until his fifth year, when there was a simple fracture of the tibia of the right leg at the middle third, caused by falling out of bed, two or three months after union the limb began to swell, the bone enlarged, and continued to enlarge for two years without suppuration, then two large ulcers formed, on the internal and external surfaces of the leg. From one, two small spiculæ of bone were discharged at different periods up to the date of my first visit.

His condition at that time was hectic, he was suffering with an acute attack of bronchitis, which yielded to treatment in a week, had very little appetite, and weighed only sixty pounds having shown no physical development whatever for eight years past, upon the surface of the leg, from the knee to the ankle-joint, there were nineteen ulcers, situated over the cloacæ that are to be seen in the shaft of the tibia, connected by numerous sinuses, the ulcers measuring in circumference from the size of a silver five cent piece to that of a silver dollar, all discharging an exceedingly fetid, ichorous, semifluid, dark-colored pus. From the commencement of suppuration he had not been able to extend the leg from the knee, or to bear any downward pressure upon the foot, owing to the continued rigid contraction of the muscles, which had drawn the leg at the knee backwards at a right angle with the thigh, and any effort at forcible extension made by himself, or a manipulator, brought on a violent rigor lasting from ten to twenty minutes, during which he complained of severe lancinating pains, commencing in the foot, and extending up the entire leg, terminating at the lower portion of the back, his skin would be bathed in a profuse and general perspiration all over the body, with the single exception of the diseased portion of the leg from the knee to the toes. The pains would then suddenly cease and the sensations of cold and numbness, which he had felt in the leg for three or four years, would return, and continue until another attempt at extension was made. I ordered cod liver oil, iron and quinine, which caused a general and rapid improvement.

On August 20, 1883, twenty days subsequent to my first visit to him, assisted by Drs. Cook and Hudson, I commenced amputating at the lower third of femur, through normal skin, tissue, muscles and periostium, until I came to the medullary canal, which was half filled with a pinkish colored, grumous matter in a degenerating state, and detached from the periphery of the bone. The fibula represents the condition of the femur, minus the medullary substance, from the middle third to the knee, except the condyles, tuberosities and articular faces. The patella and all the bones of the foot were free from disease. The shaft of the tibia had a small sequestrum encased in new bone, and in the latter are to be seen the numerous cloacæ, while the articular surfaces for condyles of femur, inner and outer condyles, internal malleolus, and lower extremity of the reproduced bone had undergone necrosis. The medullary canal of the fibula was in the same condition as in the lower extremity of femur. The head of the bone, and external malleolus had undergone complete degeneration and had been discharged. The shaft had been fractured by muscular contraction, and showed commencing necrosis in its periphery.

I immediately re amputated at the upper third of the femur, through normal bone, and used carbolized water dressings to the wound, which healed by first intention. I continued the supporting treatment as above described for one month after the operation. Six months afterwards he came to my office with a sound stump, and weighed one hundred and forty pounds. I saw him again in 1885, eighteen months after the amputation, his health was good, and he was self supporting by harness making. The most remarkable features in this case were the extraordinary powers of resistance to septicæmia and constant drainage prior to the removal of the diseased member, and the subsequent continued and complete recuperative capacity of the system, under the most unfavorable hygeinic conditions.

MEDICAL PROGRESS

SURGERY

Treatment of Spina Bifida by the Injection of Iodo-Glycerine Solution —The Clinical Society of London, some time since, appointed a committee to consider this subject, and they made their report at the meeting held May 22, 1885, an abstract of which may be found in the English journals The committee undertook an examination of all the specimens of this deformity contained in the London museums, as well as those in Cambridge and Glasgow, and sundry others placed at their disposal by different contributors to the report The subject was therefore divided into two parts *first*, the pathological anatomy of spina bifida, and *secondly*, the treatment of the deformity

Pathological Anatomy The term spina bifida was used to define certain congenital malformations of the vertebral canal with protrusion of some of its contents in the form of a fluid tumor With very rare exceptions, the malformation affected the neural arches of the vertebræ, and the tumor projected posteriorly, in rare cases, however, the bodies of the vertebræ were involved, the tumor in such cases protruding anteriorly into the thorax, abdomen, or pelvis between the lateral halves of the bodies affected The specimens fell under three chief divisions 1, protrusion of membranes only (spinal meningocele), 2, protrusion of membranes together with the spinal cord, and its appertaining nerves (meningo myelocele), and 3, protrusion of membranes together with the spinal cord, the central canal of which was so dilated as to form the sac-cavity, the innermost lining being constituted by the expanded and atrophied substance of the cord (syringo-myelocele) The comparative frequency of these three varieties is meningo myelocele, meningocele and syringo-myelocele last The dissection of a typical case was given in the report, with the theory, best explaining the pathological anatomy, which assumed a primary defect of development of the mesoblast from which the structures closing in the vertebral furrow were developed

Clinical Course and Treatment of Spina Bifida The Registrar General's Report for 1882 showed 649 deaths from spina bifida in England and Wales, of which 612 died under one year of age The committee held that, though a certain number of these deaths were due to local causes—rupture of the sac, draining away of the cerebro-spinal fluid, and subsequent septic meningitis—yet in a large proportion of the cases death ensued from the marasmus and general defective nutrition so frequently associated with the deformity which could not be remedied by any local or other treatment As regards treatment, injections with simple solutions of iodine showed a considerable amount of success Good results seemed to have been obtained from ligature of the sac Excision likewise had a considerable proportion of success The plan of repeated tapping and pressure gave the least successful results of any The injection of Morton's fluid showed a percentage success of between 50 and 60 The high mortality was thought to be largely due to the treatment having been adopted in unsuitable cases on account of its simplicity and supposed safety In spite of the favorable results of ligature and excision, the committee reported against these methods of treatment, and advocated the plan of treatment by injection, and preferably by the injection of Morton's fluid

Prof Humphrey, of Cambridge, in a lecture on this subject (*Edinburgh Med Jour*, June, 1885), considers the sac as most likely developed from a subarachnoid lymph space In the treatment by injection, he thinks it better to introduce the needle, not in the mesial line, especially in the upper part, where the cord is almost certain to be connected with the walls of the sac, but on one side Further, the separateness of the cavity of the sac from the cavity of the spinal arachnoid, in most instances, is some security against the direct passage of the injected fluid into the latter cavity, and the advantages of Morton's fluid, as an injection, probably depend upon the addition of glycerine to the iodine and iodide of potassium, lessening the liability to the diffusion of those irritating substances through the delicate lining of the sac into the surrounding subarachnoid tissue

Cocainisation of the Bladder —Dr P Bruns, of Tubingen, records (*Berl Klin Woch*, No 21,) a case of litholopaxy in which the bladder and urethra had been rendered insensitive by cocaine The patient had suffered from symptoms of stone for four years, and, on sounding, the stone was found to be hard and rough, and two centimetres and a half in diameter There was also considerable purulent cystitis As a preliminary measure the bladder was washed out with boro salicylate solution, then twenty grammes of a two per cent solution of cocaine were injected into the bladder, and ten grammes into the urethra By shifting the position of the patient the contact of the injection with all sides of the bladder was ensured After a few minutes' interval the bladder was filled with the boro salicylate solution, and the operation proceeded with Owing to the hardness of the calculus thirty-three crushings were necessary, occupying twenty-two minutes, but during the whole period no pain was felt, although previously the patient had hardly borne the passage of a catheter During the evacuation pain was experienced each time the bladder was distended, but the anæsthesia had lasted for half an hour Finally, a small quantity of a ten per cent iodoform glycerine solution was injected, with a view of protecting the abraded bladder from purulent absorption The calculus, which was of the oxalate mulberry variety, weighed 4 grammes A speedy recovery ensued —*Lancet*, May 30, 1885

Cocaine in the Extraction of a Needle from the Foot —Mr Samuel Nall reports a case in the *British Medical Journal*, of June 27, in which a fragment of a needle, lying about a quarter of an inch beneath the surface of the foot, was easily and painlessly extracted after the application of a 4 per cent solution of cocaine

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM IN ADVANCE	$5 00
SINGLE COPIES	10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, JULY 18, 1885

THE INTERNATIONAL MEDICAL CONGRESS OF 1887

The events of the past week have only served to demonstrate more clearly the appropriateness of our remarks in the JOURNAL of last week concerning the inexcusably hasty action of several prominent members of the profession in Philadelphia, Baltimore, and Boston, regarding the action of the Committee on the Organization of the International Medical Congress of 1887, at its recent session in this city Such action was taken, not only before the proper officers of the Committee had made any authorized report, but before the Committee had in any proper sense so far completed their work as to make a publication of the same proper The very nature of the work the Committee had to do, with the limited time allowed for the meeting, rendered it highly important that their action should be carefully written out and reviewed at least by the Executive Committee, the prominent appointees conferred with, and time given to receive suggestions, supply defects and fill vacancies caused by declinations or otherwise

The General Committee as first organized had its first and only meeting in Washington in November, 1884, and they took four months subsequently in which to confer and further perfect their work through the agency of their Executive Committee, before publishing the results, and then left several parts incomplete But now, forsooth, in four days after adjournment of the Committee, on mere partial, verbal reports, a few grave, learned, and hitherto justly honored members of the profession in the three cities named, hasten together and denounce the work of the Committee as "detrimental to the interests of the medical profession in America," and ostentatiously resolve to "decline to hold any office in said Congress as now organized" If these men had first taken pains to learn accurately what the present Committee had done, and then assembled for the purpose of considering the more important items with a view of suggesting improvements and thereby aiding the Committee in rendering their work more complete and acceptable, they would have given evidence that they had more regard for the honor and interests of the profession than for their own personal prejudices and dislikes, in other words, they would have acted like *men* and not like half grown school boys Although the assembly of twenty-eight in Philadelphia, the nineteen in Boston and the twelve in Baltimore each solemly adopt preambles and resolutions, not one of them specifies any particular provisions or rules that had been adopted by the Committee on Organization, the practical working of which would prove "detrimental to the profession in America," or in any other country But from the editorial comments in the *Medical News* of Philadelphia, the inference may be drawn that the alterations made in the first *Rule*, by which the American membership of the Congress was limited to delegates appointed by the American Medical Association and the State and local societies in affiliation with it, was the chief cause of dissatisfaction

It is claimed that the International Medical Congress is a purely scientific body, having no reference to particular national or State medical organizations Evidently recognizing some force in this claim, the members of the Council of the New York State Medical Association held a meeting, not like their brethren in Philadelphia and Boston, to denounce the work of the Committee and hasten to wash their hands of all further responsibility, but to devise, if possible, some improvements And after due deliberation, they make to the Committee on Organization the following suggestion

"*Resolved*, That the Council of the New York State Medical Association respectfully recommends to the Committee of Arrangements for the International Medical Congress the following modification of the rule by which the American membership of the Congress is to be constituted, to wit

"That the American membership of the Congress be constituted of delegates, who shall be entitled to participate in the business and scientific proceedings, and of members who shall be entitled to participate only in the scientific proceedings of the Congress, that the delegates may be appointed by the American Medical Association and by State and local organizations in affiliation therewith, in the proportion of one delegate for every ten or fraction of ten members of the organizations thus represented, that members of the regular medical profession of the United States may become members of the Congress by registering their names as such and by taking out tickets of admission"

For all the purely *scientific* interests and proceedings of the proposed Congress, this proposition opens the door to all the members of the regular medical profession of the United States to become members of the Congress, by simply "registering their names as such and taking out tickets of admission"

This proposition will doubtless receive the favorable consideration of the Committee on Organization, and is certainly liberal enough to satisfy the purest scientists in this or other countries If we are correctly informed, there is another part of the work of the Committee that needs further attention During the session in Chicago, the Committee re-adopted Rule 6, without alteration, which reads as follows

"6 All addresses and papers, read either in the General Meeting or in the Sections, are to be immediately handed to the Secretaries The Executive Committee after the conclusion of the Congress, shall proceed with the publication of the transactions, and shall have full power to decide which papers shall be published, and whether in whole or in part"

The duties enjoined in this rule are very important, and the Executive Committee referred to was a Committee of the Congress provided for in the previous Rule 10 But the present Committee, in changing Rules 9 and 10 in such manner as to make the General Committee on Organization a simple Committee of Arrangements, with officers entirely separate from the officers of the Congress, have omitted to provide for any Executive Committee of the Congress proper This is an important omission, and we would suggest that the Committee supply it by a rule making the President of the Congress, the Secretary-General, the Chairmen of the Finance Committee, and the Chairman of the several Sections an Executive Committee of the Congress for the purposes named in the sixth rule These considerations make it desirable that the Committee have time for further conferences before any formal publication of their proceedings

We understand that the officers of the Committee are already taking the preliminary steps for another meeting early in September, and if the professed friends of the Congress will take half as much pains to aid the Committee in completing wise and satisfactory arrangements, as some of them do to find fault and throw obstacles in the way, there will be no trouble in securing good arrangements and a successful Congress

---

"A cardinal source of dissatisfaction with the new organization is that it is under the control of a handful of discontented men, who were not included in the preliminary organization, and who stirred up this trouble for what they could make out of it"—*Medical News*, July 11, 1885

Just so, the simple truth will come out sometimes even by accident After all the pretenses, then, about changes in the plan of organization, a *cardinal* source of the dissatisfaction with our learned friends of the Quaker City, is that poor Mordecai is found sitting at the King's gate

---

"There can be no question that the Committee of eight had full and specific authority to add to its membership, and that the original Committee thus enlarged was authorized to make all arrangements for the Congress, so far as the American Medical Association could give such authority, The International Medical Congress accepted the invitation with this understanding, and thereby practically accepted the original Committee of eight as its Committee of Organization"—*Medical News*

Grant it all, and there can be no possible question that the same American Medical Association from which the Committee of eight derived all the authority it ever had, made itself fully responsible for the acts of its Committee, and possessed just as "full and specific authority" to modify the powers conferred whenever it might choose to do so And yet on the first attempt to do this, five of the eight voluntarily abandon their position, and ingloriously turn their backs upon their duties both to the Association and the Congress Pure unselfish patriotism that!

THE OPERATIVE TREATMENT OF ASTHMA

Such is the title of an important and interesting paper read by Dr Wilhelm Hack at the Fourth Annual Congress of Internal Medicine held last April at Wiesbaden, Germany This address forms the latest contribution to our knowledge of certain reflex phenomena which have been carefully studied by French, German, English and American rhinoscopists We refer to certain neurosal conditions, notably hemicrania and asthma, which are found to be occasioned reflexly by diseased states of the nasal mucous membrane Attention was first directed to this possibility by Voltolini, who reported the cure of a case of asthma by the removal of a nasal polypus Similar observations were subsequently made, and the subject was discussed, by Hanisch, Frankel, Hack, Bresgen, Sommerbrodt, Porter, Daly, Todd, Spencer, Mulhall, Joal, Jacquin, Mackenzie, Eslberg and others in Europe and America. It was speedily discovered that not merely asthma and hemicrania, but also cough, supraorbital neuralgia, nightmare, chorea, epileptiform seizures, dizziness, palpitation of the heart, dyspeptic symptoms and other phenomena, attributable to vaso motor disturbance might in rare instances have their point of departure in structural alteration or abnormal irritability of the nasal cavities.

For the most part these conditions are such as partially or wholly occlude the nares, as polypi, but Hack's observations have shown that these reflex phenomena are not due necessarily to the polypi, that is, to any obstruction of the nasal orifice, but to irritability of the nasal tissues. In several instances he removed redundant and irritable portions of adjacent mucous membrane, leaving the obstructing new growths *in situ*, and thereby achieved an immediate cessation of the asthma. Clearly then, the obstruction was not the cause of the mischief. In accordance herewith, Schaffer announced that reflex manifestations might accompany chronic nasal catarrh, and endeavored to account for the asthmatic complications as being reflex through the vagus, and not at all due to direct impediment to the free passage of air through the nasal fossæ or to any chemical action of the polypi upon the inspired atmosphere, as was at first suggested.

Frankel went further than Schaffer and explained all reflex manifestations as dependent upon an abnormal irritability of the sensory nerves distributed to the mucous membrane of the nose. Hack accepts this theory as satisfactory in many cases, but believes in the majority of instances that the connecting link between diseased conditions of the nose and the reflex disturbances, accompanying them, is an acute or chronic turgescence of the turbinated bodies, particularly the anterior extremity of the lower turbinated body. Accordingly, he destroys these hypertrophied structures, with the galvano cautery, in every case where their enlargement seems to be the disturbing element. In his paper before the Congress, he reports two hundred and forty cases of hemicrania which were cured by the operative treatment. Of eighty seven cases of asthma, a large majority was entirely relieved. Space does not admit of a detailed account of some of his cases, and hence our readers are referred to the *Berliner Klinische Wochenschrift*, Nos. 21 and 22. Hack's statistics are so gratifying that it would be natural and excusable if young rhinoscopists were rendered wildly enthusiastic by the perusal of them, and should expect astonishing results to follow every operation for the removal of redundant tissue or new-growths within the nasal fossæ. Yet, Hack himself, out of a vast experience, deprecates, and warns against unbounded enthusiasm. While every rhinologist should be on the lookout for these cases, he must not be disappointed if he goes long without finding them.

Hack has undoubtedly explored this field of research the most thoroughly, and obtained the greatest fruits. Last year he published a monograph entitled "Concerning the Operative and Radical Treatment of Certain Forms of Migraine, Asthma, Hay-Fever and Numerous other Allied Conditions." As it is beyond the scope of this article to review this monograph, we will only make a few extracts from the author's conclusions. Among conditions which reflexly occasion a turgescence of the turbinated bodies, he mentions pathological changes in the mucous membrane of the nose, or pharynx, excitation of nerves of special sense and sensory cutaneous nerves, disturbances of the sexual organs, as *e. g.*, menstruation, direct irritation as from dust, heat and cold. On the other hand, turgescence of the turbinated bodies occasions various phenomena of a reflex nature. And in many of these Hack attributes the symptoms to a vaso dilator influence upon the vessels of the part. Thus for instance, he explains flushing of the upper part of the face, hyperæmia of the conjunctivæ, and in one case an amount of redness and swelling of the skin which actually amounted to œdematous infiltration of the part concerned. The headache, lachrymation and other symptoms belonging to acute coryza and hay-fever, he would also account for as reflex manifestations.

In conclusion of this highly interesting and important subject, we think a word of caution not out of place, and hence, quote the words of Morell Mackenzie. He says: "Whilst fully admitting that many reflex phenomena may arise from disease within the nose, I must caution the younger specialists that the various complaints, referred to as resulting from nasal disease, are much more frequently due to other conditions, and that every other possible cause must be eliminated before the nose is incriminated."

THE SURGICAL TREATMENT OF CYSTS OF THE PANCREAS.

Such is the title of a valuable paper read before the late annual meeting of the American Medical Association by Dr. N. Senn, of Milwaukee, and published in the July number of the *American Journal of the Medical Sciences*. It may be remarked, *en passant*, that as this paper was read before the As sociation, it was the property of that body, and as that body has an official organ for the publication of papers belonging to it, it does not need very much argument to show that the paper is out of place in any other journal until it has been published by the official organ, except by special permission of the Association

As the basis of his paper, Dr Senn reports a personal case of cyst of the pancreas in which he performed laparotomy, with the result that the patient recovered In this case there was a history of traumatism, a severe blow on the left side of the abdomen and back, subsequent diarrhœa, and the appearance of a tumor in the left hypochondriac region two weeks after the injury Five weeks after the receipt of the injury, he was admitted to the Milwaukee Hospital, and came under the care of the author of the paper At this time there was considerable emaciation, and the patient complained of a sensation of fulness and weight in the region of the stomach, always increased after eating, and only relieved by vomiting The tumor occupied almost the whole of the epigastric region and the entire left hypochondriac, the most prominent part being to the left of the median line, and about three inches below the ensiform cartilage There was a line of dulness extending from the left nipple to within an inch above the umbilicus, posteriorly the dulness extended from the eighth to the inferior border of the twelth rib There was distinct fluctuation on percussion, the wave of fluctuation being conveyed across the whole area of dulness The heart was so much displaced upwards that the apex beat was distinctly felt in the fourth intercostal space "The stomach was artificially distended by carbonic acid gas, when it was ascertained that it was pushed to the right and compressed by the tumor" In order to ascertain the nature of the contents of the tumor, the needle of a hypodermatic syringe, after being thoroughly disinfected, was introduced into the most prominent portion of the tumor, and some of the fluid withdrawn It was viscid, slightly opalescent, alkaline, and contained a considerable amount of albumen

The weight of evidence being in fayor of a cyst of the pancreas, laparotomy was performed under the *strictest antiseptic precautions*, and the cyst was opened and emptied, and its walls drawn forwards into the wound and stitched to the parietal peritoneum, this having been previously united with the skin The patient did not vomit after the operation, the pulse did not rise above 90, and the highest temperature was 100° F, on the day after the operation The sutures were removed at the end of the first week, no other dressings were applied, and the skin healed without suppuration, only a small amount of pus escaping through the fistulous opening with the secretion "The secretion became clearer after the operation and continued to discharge in varying quantities for almost four weeks One of the drainage tubes, inserted at the time of the operation, was removed at the first change of the dressing, and the second was gradually shortened and entirely removed four weeks after the operation At the end of the second week, the cyst was explored with a disinfected probe, which passed to the depth of eight inches in the direction of the tail of the pancreas" The fistulous tract, becoming lined with granulations, grew smaller and shorter, and at the end of eight weeks it was so narrow as only to admit a small probe, which passed to the depth of four inches In January, 1885, the patient was discharged cured, with the fistula completely closed, and perfect digestion

We have only commendation for the manner in which this case was treated Though there are several affections which may come up in the differential diagnosis of cystic disease of the pancreas (or of almost any abdominal tumor), the treatment for those which are most likely to be confounded is practically the same at the outset—exploratory aspiration or incision It is very unlikely that a surgeon could, after a thorough examination, with a knowledge of the history of the case, mistake an aneurism, malignant disease of abdominal organs, circumscribed peritonitis with exudation, or ascites even, for cystic disease, echinococcus, or hydro or pyo nephrosis And Dr Senn very pertinently says It may be stated that a positive diagnosis has so far not been made in a single instance (of cyst of the pancreas), and that for all practical purposes it is only essential to make a probable diagnosis between a pancreatic or some other kind of a cyst which would call for the same kind of surgical treatment In very obscure cases an exploratory incision under antiseptic precautions for diagnostic purposes is a justifiable procedure

Dr Senn recommends that the incision be made, not through the linea alba always, but through the most prominent part of the tumor, for if adhesions form they would naturally begin at this point, the incision over the most prominent part would increase the facilities for proper drainage, and the band of connective tissue, resulting from atrophy and obliteration of the cyst, would form a permanent ridge between the gland and the cicatrix in the abdominal wall, and this band should be where it will least interfere with underlying organs

SOCIETY PROCEEDINGS

SUFFOLK DISTRICT MEDICAL SOCIETY

SECTION FOR CLINICAL MEDICINE, PATHOLOGY, AND HYGIENE

Meeting of April 8, 1885

DR JAMES C WHITE IN THE CHAIR

DR F F DOGGETT read a paper entitled

METALLIC POISONING FROM CANNED FOODS, WITH A REPORT OF SIX CASES OF POISONING FROM CANNED TOMATOES

Considering the vast amount of canned food consumed and the chances of metallic poisoning in its use, it is certainly remarkable that so few cases of such poisoning are on record, hence the interest of the cases reported in this paper From a hasty search of the literature of the subject, drawing references from the five volumes of the *Index Medicus*, as well as other sources, but a comparatively few cases have been found Most of these have occurred in England and America, but few in France and Germany, this being probably due to the fact that much less canned food is used in the two latter-mentioned countries

In addition to the above, I have collected together certain hints about the process of canning foods and the appearances of bad cans and their contents, whereby, in cases of lead poisoning or irritant poisoning, if we suspect canned food as the cause, we may arrive at some opinion as to the suspected can and its contents, and this will be found to be a most practical help to us as practitioners

Dr Johnson, in a paper read before the New York Legal Society, April 8, 1884, gives an account of several cases of corrosive poisoning from zinc and tin chloride in canned goods The zinc chloride is with tin chloride formed into a flux or solution, and is used in soldering the ends and sides of the cans instead of rosin and ordinary solder, than which it is much more convenient though very poisonous, and in spite of great caution it may at times get into the contents of the can So certainly is this means of poisoning from canned food recognized that the State of Maryland has passed a law forbidding the use of the poisonous zinc and tin chloride amalgam in canning food

In all his cases diarrhœa was very marked at first, which is not usually the case in simple lead poisoning In the cases in which the pulse was especially examined there was great disturbance, it being irregular and very quick, from 120 to 150 In simple lead poisoning the pulse is slow, according to Flint According to Reeve, it is sometimes quickened But in poisoning from an irritant, metallic poisons as copper, zinc, or tin, the pulse is small, irregular and quick Stannous chloride is very poisonous, the symptoms from poisoning by this salt resemble corrosive sublimate poisoning, though much milder It is improbable that in these or similar cases of poisoning a poisonous tin salt could come from the wall of the can itself, though there is some reason to suppose that lead may so contaminate the contents of the can First in regard to tin

In 1878, A E Menke reports that in an analysis of many specimens of canned lobsters, apples, and pineapples he found tin present in the contents of all, and in the latter as much as 1 3 gr to lb This was reported in the *Chemical News* (England) In 1880, Hehner, in the *Analyst* (Eng), reports that he found tin present in canned asparagus, tomatoes, peaches, pineapples, cherries, corned beef (five brands), oysters, sardines, salmon, mutton, chicken, turkey and canned milk (three brands) In the milk there was one-tenth gr to lb In soup, one-half gr , and in oysters seven-tenths gr Later, Wynter Blyth, in a report to the Vestry of Marylebone, found in twenty three samples of tomatoes, in cranberries, apricots, and pineapples, larger quantities in in form of stannous hydrate, which is much less active than stannous chloride In some of the above specimens he found as much as 14 3 gr per lb , and the average amount in all examined was 6 2 gr per lb In some, even the juice had a metallic taste In some cans the tin was corroded By experiments on Guinea-pigs with stannous hydrate, Orfila found that it took 174 gm per kilo in weight of body of the animal to produce death Assuming man equally susceptible to the poison as the Guinea-pig, it would take from three to four drachms to kill a man It is probable, however, that small repeated doses act more powerfully, as with mercury Such a result is likely to follow after long continued living on an exclusive canned diet, as on long voyages Such a state of affairs was found to be present among the officers and crew of the ill fated Jeannette on their memorable retreat over the ice to the coast of Siberia The goods had been canned for two winters and two summers, and had been a constant article of diet The longer the vegetable and fatty acids are in contact with the metal the more will be the likelihood of a poisonous stannous compound forming In Germany Drs Unger and Bodlander examined a great number of cans of fruit and vegetables, and always found tin present in the solid parts as an insoluble stannous compound, the per cent of tin being 04

On May 5, 1884, Professor Attfield, of England, read a paper before the Pharmaceutical Society of London, detailing a large number of analyses of sixteen varieties of foods, in only a few cans of which could tin be found, even in small quantities In his opinion a harmful quantity would produce such a disagreeable taste as to render it unfit for food, further, that the "public has not the faintest cause of alarm respecting poisoning from either tin or lead in canned food," further, that when symptoms have been reported they have resulted from stannous or plumbic chloride, formed with hydrochloric acid in soldering, this tin salt being very poisonous He further thinks that a poisonous tin or lead salt may be formed by contact of the fatty or vegetable acids on the metal of the can or solder when kept open in the air waiting to be used A commissary officer, high in the United States Army, has made the statement that during a series of years in different parts of the country hundreds of thousands of cans of food have been used by the army, and no case of poisoning from such food has ever been reported That extraordinary care is used in selecting the cans in the United States service I know to be true, as a gentleman lately in the Navy informs me that all swelled cans are rejected

It is probable that a large part of the canned food at any time on hand has not been freshly canned Hence the great resistance made to the passage of the proposed bill through the New York Legislature in the spring of 1884 by the producers of canned goods The bill was to the effect that each can should be stamped with the date of its preparation I have found that in "the trade" the inferior goods are known as "Seconds" and "Re-processed," which means that the cans which have failed in the first preparation to become hermetically sealed, or those which have rusted or got punctured and the inside of the can oxidized and chemically acted on by the acids of the contents, and perhaps the contents partially decomposed, such cans are superheated in steam or boiling water, resoldered, and returned to the market So far as poisoning from tin is concerned by formation of a poisonous compound from chemical union of acids of the contents of the can with the metal, either in the solder or from the walls of the can, or from careless use of stannous chloride in soldering, the great bulk of testimony shows that such poisoning may occur The apparent discrepancy between Professor Attfield's testimony (although he admits poisoning may occur from tin) and other authorities is explained when we recall that they were examining different specimens

Four of his cases were cases of lead-poisoning from eating the canned tomatoes, and having demonstrated the presence of lead in a specimen of the same brand obtained from the same source, it remains to inquire how lead may get into the contents of the can When genuine solder is used some small quantity of lead in it may get in and be acted on by the contents, forming a soluble salt, and so be absorbed, but in all the analyses to which he has had access this has never been considered of consequence enough to suggest poisoning, except with a strong acid contents

The other possible source of the lead is important It appears than an amalgam of tin and lead is cheaper than the former metal alone, hence there is always an inferior quality of tin in the market which contains from ten to one per cent of lead, and such tin has been used in canning foods, and lead-poisoning from such a cause has resulted For instance, Dr Magruder publishes a case of lead-poisoning from eating canned corn He found that tartaric acid was used in preparing the corn, and that the tin of the can had a certain amount of lead as an amalgam with it This he proved by testing the tin of the can, and he found the same to be true in several cans of the like brand which he tested This was verified by Dr Onderdonk, of St James College, Maryland, who out of many cans tested found only two free from lead Dr Dorsh reports that out of a large number of cans tested he found lead as an alloy with tin in almost every case An alloy of lead and tin is more easily oxidized and dissolved than tin alone I have tested twenty cases of many brands, from the cheapest to the highest price, and have always found lead present in the tinning of the cans This, too, with weak solutions of nitric acid, allowing the acid to act some time and then getting the characteristic yellow iodide of lead by dropping on a crystal of potassic iodide The principal examiner of chemicals in the Patent Office at Washington says that all commercial tin is alloyed with lead, and that the formation of salts of lead and tin when in an alloy is especially liable to take place in presence of fruit acids Professor Wormley, of the University of Pennsylvania, gives his testimony that several cases of lead poisoning have occurred after eating canned fruit Naunin, in Ziemssen's Cyclopedia, says a mild lead-poisoning may occur from the action of fatty and vegetable acids on the lead in an alloy of tin and lead Some specimens, such as Bohemian tin, may contain ten per cent of lead

On the other hand, F P Hall, after analyzing a number of specimens of tin used in canning food, says the tin is generally pure, and in his opinion such acids as would be present in canned food would not affect impure tin enough to cause poisoning The French Commissioner of Hygiene admits cases of lead-poisoning from canned food in cans made of tin and lead alloy, and suggests that a law should be made in France compelling the use of pure tin M Gautier, in France, reports that no death has been traced to canned goods, but many cases of lead-poisoning have been reported from continued use of such goods To show how the specimens of tin used in canning goods may differ, so good an observer as Professor Remsen, examined some of the same brand of canned corn which produced lead-poisoning in Dr Magruder's case, and reports that lead was absent in the corn, also in the metal of the can So that, as pointed out in reference to poisoning from a salt of tin, contradictory evidence of this kind should have no great weight, as some specimens of the same brand are good and some bad In the case of lead poisoning seen by the writer, it seems most probable that the lead salt absorbed was produced in the cans by the chemical action of a vegetable acid from the tomatoes acting on the lead contained in the alloy of the can, and possibly on a little solder which may have got in through carelessness The writer regrets that he did not test the suspected can for lead in form of an alloy

In general, the possible sources of danger to the consumer of canned foods are to be found in the structure of the can, the solder, or in the contents, *per se* As to poisoning from decomposed animal canned food, many cases have been reported For instance, in the *British Medical Journal* of November 1, 1879, there is reported the account of the poisoning of twenty-one persons from eating "Chicago corned beef" The symptoms were those of an irritant poison, even proceeding to collapse, though all the cases recovered Usually the unpalatableness of the contents is enough to warn the consumer not to partake The bad condition of the contents can often be foretold before opening the can; as, if air has been admitted at the time of soldering, or from improper methods of preparation, or original unsound contents, decomposition will take place and fermented gases be formed within the can, together with the acids; this will cause the ends of the can to bulge outward. In "the trade" such cans are called "swells." Such cans should be rejected. A recent writer on the subject has said that a bad can will have a rattling contents on being shaken. I think this proves nothing as to the badness of a can; for, in case of between thirty and forty cans of tomatoes, the contents were found perfectly good on eating, though before opening the contents of the cans rattled on shaking.

Among the cheaper grades of canned tomatoes I have occasionally found that the contents will curdle milk, though it may taste and look as usual. I think in such cases that some fermentation has taken place, and in the process a vegetable acid has been found to curdle the casein of the milk. Ordinarily, the juice of the tomatoes mixes with the milk without curdling it. Accordingly, if a little of the juice of a suspected can of tomatoes will curdle an equal quantity of sweet milk, one would be justified in assuming the presence of some vegetable acid in the tomatoes. It is only a question of amount of acid and length of time it remains in contact with the surface of the can that will determine the presence of a lead salt in the contents of the can. The contents may have a metallic or astringent taste, as in the above-reported cases, and then it should be rejected. As to the solder, there is danger of corrosive poisoning from presence of tin, or zinc, or lead, or all. For it is now, or has been, a custom, within a short time, to use a flux of tin and zinc chlorides, and with hydrochloric acid to solder on the head of the can. This is so poisonous that a small quantity in the can would do much damage. The ordinary way of soldering is with a solder of tin and lead with rosin, which last in melting leaves its trace around the head and at the side of the can. Hence, reject a can not showing this, as then the presumption is that the poisonous solder has been used. A small piece of the tin and lead solder may fall into the can, but as yet has never been shown to have done harm. However, if a large surface of solder is left on the inside of the can by the solderer, and if acids were formed in the can, there would be a good chance for lead salts to be formed; for ordinary plumber's solder contains seventy five per cent. of lead—a much larger amount than would be found in the turning of the can.

The acids likely to be formed by fermentation or decomposition of the contents of the can are from vegetables and fruits, acetic acid, malic, citric, and tartaric; from meats or fish mostly butyric acid.

As solder is somewhat expensive in quantities, and an unskilful solderer will use more than a skilful one, solder in sticks is sold to each man. We may see from this that some cans would have more solder on the inside than others. Further than this to solder quickly and with an economy of solder, with rosin as a flux, requires a skilful workman, whereas the beginner uses much solder, and at first, perhaps, hydrochloric acid instead of rosin as a flux. The acid, in contact with the solder, forms the very poisonous stannous chloride, which, in the hands of the beginner, is all the more likely to be used carelessly and get into the contents of the can. The manager of a canning factory makes such a distinction between a good and bad solderer that each man is often made to put his mark on each can made, so that it may afterward be identified.

As to the can itself, if pure tin alone were used, the formation of a poisonous stannous compound sufficient to produce marked symptoms, even if eaten for a long time, would not be possible, as has been absolutely demonstrated. Some innocuous stannous hydrate would always be present, however. On the other hand, if lead in any quantity is used as an alloy with the tin, then is lead poisoning likely to follow, provided enough is eaten, and over a considerable time. Especially is this likely to occur in goods kept for a long time, or when the contents are left in such a defective can exposed to the air, or when such cans and their old contents have been "reprocessed." These last can be detected, as there are then to be seen two soldered-up holes instead of one in the head of the can; the sound cans have but one soldered-up hole. The contents should never be allowed to stand long in the can after opening, especially in warm weather. The can should contain on the label the name of the manufacturer and place of putting up, and be labeled "Standard." If a can has rust about the cap, air has very likely got in and the contents decomposed and formed possible poisonous compounds with the wall of can or solder; hence, reject such cans.

These points, in connection with the symptoms in any suspected case of poisoning from canned foods, will enable the practitioner to make a diagnosis. From consideration of the above facts he will be able to give his patients a just estimate of the dangers of poisoning from canned food, showing that such danger is small if the above precautions are attended to. Considering the vicissitudes that canned foods must pass through under the hands of the can-makers, the solderers, and the tradesmen, with the chance of being "reprocessed," or kept for years before reaching the consumer, it is surprising that so few cases of poisoning therefrom have been reported.

Professor Hills stated that the reader had given an impartial *resume* of the literature of the subject, as it has appeared in the medical journals of the past few years. He criticised, however, the prevalent practice of attributing the symptoms which sometimes follow the ingestion of tinned foods to metallic compounds, without first ascertaining that the article ingested actually contains such compounds. It is not sufficient, moreover, to show that the food contains an unknown quantity of some metal. A quantity sufficient to account for the symptoms must be demonstrated before one is justified in attributing the symptoms to metallic poisoning. Symptoms resembling those of irritant poisoning not infrequently follow the ingestion of food which has not been preserved in tins, and in which chemical analysis has failed to disclose any irritant poisoning. Cases are also recorded in which tinned foods, free from metallic salts, have given rise to similar symptoms In these cases the symptoms could not have been caused by metallic irritants, and the speaker believed this to be true of a large majority of the reported cases of poisoning from tinned foods

Two facts are well established with reference to these foods First, they frequently contain traces of certain metals, they usually contain tin, not infrequently zinc or lead Second, symptoms resembling those of acute irritant poisoning, and even death have followed their ingestion It has not been proved in any authenticated case, so far as the speaker could remember, that the symptoms have been caused by the metallic impurity

It is important to bear in mind that the quantity of tin, lead, or zinc which a can of food contains is very small The quantity of tin, when present, usually ranges from a few one hundredths of a grain to one grain per pound, rarely approaching, however, the higher figure These amounts are not likely to give rise to symptoms of acute poisoning, though, it is true, but little is known regarding the poisonous action of tin compounds, if we except the chlorides and the oxide The speaker believed, however, that a quantity sufficient to produce harm is rarely present If present, he believed that it would be recognized by its taste, and the food thus contaminated be rejected as unpalatable Such cases, so far as there is any evidence, are rare Lead in tinned foods is derived either from the tinned plate or from the solder The quantity present in foods thus containing lead is too small to give rise to symptoms of acute poisoning Zinc is frequently detected in tinned foods Its presence is attributable to the use of the chloride of zinc solution as a soldering fluid The speaker could not recall any cases in which a determination of the amount present had been made He did not, however, deny the possibility of tinned foods at times, containing a sufficient amount of chloride of zinc to cause symptoms of acute poisoning, or the possibility of such symptoms having been caused by this substance He objected to attributing the symptoms in any case to chloride of zinc without a chemical analysis The probability of the occurrence of such cases must be slight, since the solution employed is dilute, and a small amount only is used on each can Through the carelessness of workmen, however, a quantity sufficient to produce symptoms might find its way into the food, but food thus contaminated would be rejected by reason of its disagreeable taste It has been suggested that the excess of hydrochloric acid in the soldering solution may act upon the tin, forming the poisonous chloride of tin If the soldering solution is properly prepared, and an excess is avoided in soldering the cans, it is not probable that a quantity sufficient to produce harm will be formed If present in injurious amount it would undoubtedly be recognized by its taste On the whole, these cases of acute poisoning as a result of metallic impurities in canned goods must be rare All the cases thus far reported are based on insufficient evidence

To what, then, are the symptoms to be attributed? Doubtless, in many cases, to idiosyncrasy on the part of the patient, in some cases perhaps to the decomposition of food It is possible that in certain cases poisonous ptomaines may have been developed in the food Finally, it must be borne in mind that cases of subacute poisoning may result from the use of copper utensils, or utensils containing lead, for the preparation of the food Cases of poisoning from these causes are no more liable to occur with tinned foods than with other foods if proper care is exercised The speaker thought that the principal danger to be apprehended from the use of canned foods was that of chronic lead-poisoning Such cases have been reported and are always to be feared when these foods are used continuously for a considerable time They are now used very largely in this way on ship board and in the army It is always a wise precaution to remove the food from the can as soon as the latter is opened, since the solution of the tin or lead may be favored by the presence of air Analyses suggest the probability that time may be a factor in the solution of tin and lead Foods which have been put up two or three years have been found to contain more of those metals than those put up more recently It is advisable therefore to avoid old cans

Dr Blodgett observed that several cases of supposed poisoning from canned foods had recently been reported in the English journals, and that several important hints had been given as to the character of the contents of the can The fact that the ends of the can are crowded outward or *bulged* is an indication that decomposition of the contained food may have occurred The presence of two punctures in the cover of the can, which would indicate that the food as originally put up was not properly prepared, but underwent a process of chemical decomposition accompanied by the formation of gases which caused the ends of the cans to be projected outward The top of the can is then perforated a second time and the gas allowed to escape, and a second drop of solder is then applied to the opening thus showing conclusively that the contents of the can were not perfectly preserved when first sealed In England it has been found that cans of improper food are often stripped of their paper wrapper and that the second puncture is then made upon the side of the can instead of at the end, and on replacing the wrapper upon the can, the second puncture cannot be detected

Professor Hills stated that the cases reported by Dr Johnson before the New York Medico legal Society were not proved, and should not be considered The statements of Dr Johnson rest upon pure assumption, and are not trustworthy The flux that is commonly used is a saturated solution of zinc in chlorhydric acid, and no free acid exists by which any deleterious effect could be produced It is desirable that, in cases of suspected poisoning from canned goods, a portion of the contents of the *identical can*, which is supposed to contain the poisonou substance, should at once be submitted for chemic analysis If, under these circumstances, poisonou ingredients or products are detected in appropriat amount, the claim against the foods might reasonably be entertained. Until this can be demonstrated, however, we must in most cases seek other causes for the unwholesome effects occasionally noticed after partaking of tinned or canned goods as articles of food.

Dr. White asked how long the family had subsisted on tomatoes before symptoms of poisoning were observed.

Dr. Doggett stated that tomatoes had been almost the sole and continuous article of food for two months previous to the occurence of sickness.

Dr. White said that it would be quite improbable that two families should take water from the same supply pipe and that lead-poisoning should occur in only one. The water must be excluded as the source of poisoning. We frequently notice that contaminated water will produce poisoning in some members of a family and not in others, but the freedom of one entire family from a disease which became general in another using the same water service would seem to indicate that the water supply was not the source of the poison.

Dr. Thomas Amory De Blois, then reported

TWO CASES OF RETRO-PHARYNGEAL ABSCESS.

Abscesses beneath the posterior wall of the pharynx should be interesting to every one, at least on account of the rarity of their occurrence, for whereas few have seen more than one or two cases, yet almost everybody has seen one. They should be quite as interesting to the general practioner as to the specialist, for they are more likely to occur in the practice of the former than the latter, on account of their usually being found in children, and of their being opened as soon as found. As to what constitutes a retro-pharyngeal abcess. We should carefully exclude the peritonsillar, or that which is found in the loose tissue around the tonsil, and in so doing might select the posterior pillar of the fauces as the anterior boundary; then any abcess posterior to these pillars, and situated beneath the pharyngeal wall, and from the vault of the pharynx above to the larynx below, should be included under this head.

It has been my good fortune to see five of these cases, two of which occured last month and within one week of each other, both being in very young subjects.

On the second of March, Dr. G. W. Galvin, being obliged to leave the city, requested me to see the child of Mrs. S., in South Street. I found the little boy, only three months old, lying on a lounge on his side. He was markedly anæmic, and breathed with great difficulty. The mother reported that the child had eaten nothing for twenty-four hours, and that during the preceding night they thought he would die in one of the paroxysms of dyspnœa, of which he had had several. What struck me particularly in the child was that the head was not thrown back, as I had expected to find it.

In the history of the case, as given by Dr. Galvin, he had found an enlargement which seemed to point internally; this disappeared, and two swellings were found on the same side of the neck externally. One of these he incised, but found little, if any pus; subsequently the tumor was found in the throat.

Placing the child in its grandmother's arms, with its back to the light, by the aid of the head mirror, and a very small teaspoon (for the arch of the jaw was to small to admit the smallest-sized tongue depressor) I gained an excellent view of a red swelling a little to the left of the middle of the pharynx, a large part being obscured by the tongue; there was also undoubtedly fluctuation on touch with the finger. Having with difficulty obtained permission to open the abscess, and after instructing the woman who held the child to reverse him, when told, as she would an hourglass, I got the point of a bistoury, well guarded with cotton, into it, and cut down till I reached my spoon. The child was inverted promptly, and the pus gushed out on the floor in large quantities, leaving no room for doubt that if the abscess had burst during sleep suffocation would have ensued. Having no syringe with me which would work, I had to wipe out the mouth repeatedly with a wet napkin.

The patient now seemed to be much weaker than before the evacuation of the pus; he was laid on the side with his head lower than his body, and occasionally a few drops of brandy and water were given, and finally the child took the breast. The following morning he was reported as being convalescent.

My second case, which I saw March 8th, was a patient of Dr. Disbrow, a female child of seven months, living in Columbia street, daughter of Mrs. H. The mother had been a patient of mine at the Dispensary about two years ago, and while pregnant had developed a peculiar and I suppose hysterical affection of the larynx, taking the form of aphonia, due to want of tension of both vocal cords; this persisted in spite of all remedies until after parturition, when it disappeared spontaneously.

Mrs. H.'s child was exceedingly pale and sick, but had been able to eat, and resisted with violent struggles all attempts to see the fluctuating swelling, which could be felt in the posterior wall of the pharynx, and which pushed forward the velum until the uvula stuck out almost erect. Only once before I cut was I able to sight the abscess, which, unlike the first one, was almost white, and stood in the median line; but this child's head was not thrown back any more than the other. I followed as far as possible my former procedures, except that in addition I had the father to hold the child's head. I think I must have been fifteen minutes trying to bring the abscess again into view, and when I did I cut exactly as I had before, except that the incision was not so long. The child was also turned head downward, and the mouth was syringed, the pus pouring through both nostrils, but there was no blood. On digital examination there appeared to be a second tumor below the first, which afterward seemed to drain off through the same opening, but it must have filled up again, for I heard of its opening spontaneously the next day. After the operation it appeared as if the child were about to go into collapse; the pulse could not be felt, the eyes closed, and she ceased to breathe; wine was given, also the breast after she had rallied a little, but she could not nurse. Yet I felt sure that none also recorded in which tinned foods, free from metallic salts, have given rise to similar symptoms In these cases the symptoms could not have been caused by metallic irritants, and the speaker believed this to be true of a large majority of the reported cases of poisoning from tinned foods

Two facts are well established with reference to these foods First, they frequently contain traces of certain metals, they usually contain tin, not infrequently zinc or lead Second, symptoms resembling those of acute irritant poisoning, and even death, have followed their ingestion It has not been proved in any authenticated case, so far as the speaker could remember, that the symptoms have been caused by the metallic impurity

It is important to bear in mind that the quantity of tin, lead, or zinc which a can of food contains is very small The quantity of tin, when present, usually ranges from a few one hundredths of a grain to one grain per pound, rarely approaching, however, the higher figure These amounts are not likely to give rise to symptoms of acute poisoning, though, it is true, but little is known regarding the poisonous action of tin compounds, if we except the chlorides and the oxide The speaker believed, however, that a quantity sufficient to produce harm is rarely present If present, he believed that it would be recognized by its taste, and the food thus contaminated be rejected as unpalatable Such cases, so far as there is any evidence, are rare Lead in tinned foods is derived either from the tinned plate or from the solder The quantity present in foods thus containing lead is too small to give rise to symptoms of acute poisoning Zinc is frequently detected in tinned foods Its presence is attributable to the use of the chloride of zinc solution as a soldering fluid The speaker could not recall any cases in which a determination of the amount present had been made He did not, however, deny the possibility of tinned foods, at times, containing a sufficient amount of chloride of zinc to cause symptoms of acute poisoning, or the possibility of such symptoms having been caused by this substance He objected to attributing the symptoms in any case to chloride of zinc without a chemical analysis The probability of the occurrence of such cases must be slight, since the solution employed is dilute, and a small amount only is used on each can Through the carelessness of workmen, however, a quantity sufficient to produce symptoms might find its way into the food, but food thus contaminated would be rejected by reason of its disagreeable taste It has been suggested that the excess of hydrochloric acid in the soldering solution may act upon the tin, forming the poisonous chloride of tin If the soldering solution is properly prepared, and an excess is avoided in soldering the cans, it is not probable that a quantity sufficient to produce harm will be formed If present in injurious amount it would undoubtedly be recognized by its taste On the whole, these cases of acute poisoning as a result of metallic impurities in canned goods must be rare All the cases thus far reported are based on insufficient evidence

To what, then, are the symptoms to be attributed? Doubtless, in many cases, to idiosyncrasy on the part of the patient, in some cases perhaps to the decomposition of food It is possible that in certain cases poisonous ptomaines may have been developed in the food Finally, it must be borne in mind that cases of subacute poisoning may result from the use of copper utensils, or utensils containing lead, for the preparation of the food Cases of poisoning from these causes are no more liable to occur with tinned foods than with other foods if proper care is exercised The speaker thought that the principal danger to be apprehended from the use of canned foods was that of chronic lead poisoning Such cases have been reported and are always to be feared when these foods are used continuously for a considerable time They are now used very largely in this way on shipboard and in the army It is always a wise precaution to remove the food' from the can as soon as the latter is opened, since the solution of the tin or lead may be favored by the presence of air Analyses suggest the probability that time may be a factor in the solution of tin and lead Foods which have been put up two or three years have been found to contain more of those metals than those put up more recently It is advisable therefore to avoid old cans

Dr Blodgett observed that several cases of supposed poisoning from canned foods had recently been reported in the English journals, and that several important hints had been given as to the character of the contents of the can The fact that the ends of the can are crowded outward or *bulged* is an indication that decomposition of the contained food may have occurred The presence of two punctures in the cover of the can, which would indicate that the food as originally put up was not properly prepared, but underwent a process of chemical decomposition accompanied by the formation of gases which caused the ends of the cans to be projected outward The top of the can is then perforated a second time and the gas allowed to escape, and a second drop of solder is then applied to the opening, thus showing conclusively that the contents of the can were not perfectly preserved when first sealed In England it has been found that cans of improper food are often stripped of their paper wrapper and that the second puncture is then made upon the side of the can instead of at the end, and on replacing the wrapper upon the can, the second puncture cannot be detected

Professor Hills stated that the cases reported by Dr Johnson before the New York Medico legal Society were not proved, and should not be considered The statements of Dr Johnson rest upon pure assumption, and are not trustworthy The flux that is commonly used is a saturated solution of zinc in chlorhydric acid, and no free acid exists by which any deleterious effect could be produced It is desirable that, in cases of suspected poisoning from canned goods, a portion of the contents of the *identical can*, which is supposed to contain the poisonous substance, should at once be submitted for chemical analysis If, under these circumstances, poisonous ingredients or products are detected in appropriate amount, the claim against the foods might reasonably be entertained. Until this can be demonstrated, however, we must in most cases seek other causes for the unwholesome effects occasionally noticed after partaking of tinned or canned goods as articles of food.

Dr. White asked how long the family had subsisted on tomatoes before symptoms of poisoning were observed.

Dr. Doccetti stated that tomatoes had been almost the sole and continuous article of food for two months previous to the occurrence of sickness.

Dr. White said that it would be quite improbable that two families should take water from the same supply-pipe and that lead poisoning should occur in only one. The water must be excluded as the source of poisoning. We frequently notice that contaminated water will produce poisoning in some members of a family and not in others; but the freedom of one entire family from a disease which became general in another using the same water service would seem to indicate that the water supply was not the source of the poison.

Dr. Thomas Amory De Blois, then reported

TWO CASES OF RETRO-PHARYNGEAL ABSCESS.

Abscesses beneath the posterior wall of the pharynx should be interesting to every one, at least on account of the rarity of their occurrence, for whereas few have seen more than one or two cases, yet almost everybody has seen one. They should be quite as interesting to the general practioner as to the specialist, for they are more likely to occur in the practice of the former than the latter, on account of their usually being found in children, and of their being opened as soon as found. As to what constitutes a retro-pharyngeal abcess we should carefully exclude the peritonsillar, or that which is found in the loose tissue around the tonsil, and in so doing might select the posterior pillar of the fauces as the anterior boundary; then any abcess posterior to these pillars, and situated beneath the pharyngeal wall, and from the vault of the pharynx above to the larynx below, should be included under this head.

It has been my good fortune to see five of these cases, two of which occurred last month and within one week of each other, both being in very young subjects.

On the second of March, Dr. G. W. Galvin, being obliged to leave the city, requested me to see the child of Mrs. S., in South Street. I found the little boy, only three months old, lying on a lounge on his side. He was markedly anæmic, and breathed with great difficulty. The mother reported that the child had eaten nothing for twenty-four hours, and that during the preceding night they thought he would die in one of the paroxysms of dyspnœa, of which he had had several. What struck me particularly in the child was that the head was not thrown back, as I had expected to find it.

In the history of the case, as given by Dr. Galvin, he had found an enlargement which seemed to point internally; this disappeared, and two swellings were found on the same side of the neck externally. One of these he incised, but found little, if any pus; subsequently the tumor was found in the throat.

Placing the child in its grandmother's arms, with its back to the light, by the aid of the head mirror, and a very small teaspoon (for the arch of the jaw was to small to admit the smallest-sized tongue depressor), I gained an excellent view of a red swelling a little to the left of the middle of the pharynx, a large part being obscured by the tongue; there was also undoubtedly fluctuation on touch with the finger. Having with difficulty obtained permission to open the abscess, and after instructing the woman who held the child to reverse him, when told, as she would an hourglass, I got the point of a bistoury, well guarded with cotton, into it, and cut down till I reached my spoon. The child was inverted promptly, and the pus gushed out on the floor in large quantities, leaving no room for doubt that if the abscess had burst during sleep suffocation would have ensued. Having no syringe with me which would work, I had to wipe out the mouth repeatedly with a wet napkin.

The patient now seemed to be much weaker than before the evacuation of the pus; he was laid on the side with his head lower than his body, and occasionally a few drops of brandy and water were given, and finally the child took the breast. The following morning he was reported as being convalescent.

My second case, which I saw March 8th, was a patient of Dr. Disbrow, a female child of seven months, living in Columbia street, daughter of Mrs. H. The mother had been a patient of mine at the Dispensary about two years ago, and while pregnant had developed a peculiar and I suppose hysterical affection of the larynx, taking the form of aphonia, due to want of tension of both vocal cords; this persisted in spite of all remedies until after parturition, when it disappeared spontaneously.

Mrs. H.'s child was exceedingly pale and sick, but had been able to eat, and resisted with violent struggles all attempts to see the fluctuating swelling, which could be felt in the posterior wall of the pharynx, and which pushed forward the velum until the uvula stuck out almost erect. Only once before I cut was I able to sight the abscess, which, unlike the first one, was almost white, and stood in the median line; but this child's head was not thrown back any more than the other. I followed as far as possible my former procedures, except that in addition I had the father to hold the child's head. I think I must have been fifteen minutes trying to bring the abscess again into view, and when I did I cut exactly as I had before, except that the incision was not so long. The child was also turned head downward, and the mouth was syringed, the pus pouring through both nostrils, but there was no blood. On digital examination there appeared to be a second tumor below the first, which afterward seemed to drain off through the same opening, but it must have filled up again, for I heard of its opening spontaneously the next day. After the operation it appeared as if the child were about to go into collapse; the pulse could not be felt, the eyes closed, and she ceased to breathe; wine was given, also the breast after she had rallied a little, but she could not nurse. Yet I felt sure that none of the discharge had entered the lungs, and on auscultation with the stethoscope they seemed to be quite clear of fluid. I tried all I could to rally the child, but when I left the house it seemed about an even chance whether she would live or die.

The next day, however, I received a letter from the father, stating that the baby was "playing on the floor as lively as a kitten."

Last year I mentioned a third case of pharyngeal abscess, which occurred at the Boston Dispensary, in a man, D. M., aged twenty-seven years, and whom I saw on the twenty second of November, 1880. He had what appeared to be an acute pharyngitis, but he returned on the 24th with his head a good deal bent backward, and a large swelling behind the pharyngeal wall, which fluctuated. I had never seen a pharyngeal abscess before, and when I passed a bistoury into it was very much surprised at the large amount of pus which flooded the patient's mouth and throat. I quickly seized him by the hair and forced his head down into a spittoon which was on the floor, and he was thus enabled to clear his throat and nasal cavities without any of it entering his larynx.

Soon after this I was allowed to see a case in the service of, I think, Dr. Haven at the Dispensary. A little child, perhaps two years old. The head was carried markedly back into the episthotonus position, and there was so much pain and so little fluctuation that I gave it as my opinion that it was a case of disease of the cerebral vertebræ, but it afterward went to the Children's Hospital, and was finally aspirated, I believe.

About a year ago I saw a fifth case in consultation with Dr. Galvin, the child was young, and the swelling was so near the posterior pillar of the fauces that I always felt some doubt as to its being a true pharyngeal abscess. Dr. Galvin cut into it while I was present, but got only blood, either that night or the next day he cut again and got pus.

According to McKenzie and the authorities he quotes, these affections are idiopathic. Bokai at least counts one hundred and twenty nine such out of one hundred and forty four cases, whereas Cohen, quoting from Gautier, states that "it appears to be idiopathic in some few instances only."

In the last volume of the Transactions of the American Laryngological Association, in the exhaustive article by Dr. J. O. Roe, of Rochester, on this subject, this gentleman quotes twelve different authorities who seem to hold twelve different opinions as to the causation of these affections. They range all the way from suppuration in the region of the perineum, by Nelaton, to chronic "snuffles," by Frankel.

In none of the five cases which I saw was there any assignable cause, there was no syphilis nor other constitutional affection that I could learn. None of the cases appear to have been well nourished, but no worse than is frequently found in that sphere of life. The hygienic surroundings were what appear to be inseparable from poverty in a large city.

In the first two cases which form the subject of this paper it will be observed the extreme prostration which followed the evacuation of the contents of the abscesses, in both cases the children luckily recovered, but would they have survived the operation had they been less strong?

Of course, incision is the procedure which most would follow in dealing with these cases, but may not death in some instances ensue from shock? Would aspiration be any safer than rapid evacuation? and if emptied by the aspirator, is not the probability of the abscess refilling much greater?

I should also like to draw attention to the fact that the heads in these two cases were not carried in what I always believed to be the "pathognomonic" position,—so that symptom was lacking.

One child was unable to swallow, while the other appeared to have no difficulty in doing so, although its abscess was larger and appeared to obstruct the pharynx more.

As to the incision, it has variously been advised to make it longitudinally, traversely from below, upward, etc., but it seems to me that the cut should be made from as near the soft palate as you can get, without injuring it down until you come to the depressor which will protect the tongue, and of course the more dependent portion of the abscess should be laid open, if possible.

The holding of a child with its feet in the air, or the forcing of an adult's head toward the floor are precautions worth observing, for even in the case of the one grown person mentioned, the liberation of the pus was so sudden and overwhelming that it was no easy matter to clear the throat quickly.

I have never seen a case of retro pharyngeal abscess due to disease of the spine, but it is this class that refill, recur, or do not get well. The idiopathic and the traumatic begin and end with the one attack.

Dr. F. H. Hooper stated that his experience in this rare disease comprised but few cases. Of these, one occurred in the Massachusetts General Hospital, and was brought to the notice of Dr. Hooper by Dr. Cabot. One case was seen in Vienna, and occurred in a male patient in the ward of Professor Schrotter. In this case there was great swelling situated low down in the pharynx, in which obscure fluctuation could be detected. Dr. Hooper operated by the aid of the mirror and the Schrotter bistoury, but did not succeed in evacuating pus. Professor Schrotter operated afterward, when it became apparent that the swelling was due to a hypertrophy of the thryoid gland, which extended completely around the pharnyx, so as to appear as a prominence behind, and had been incised. Fortunately the hæmorrhage was easily controlled. One other case was seen in Vienna.

Dr. Blodgett mentioned one case within his observation in which the nature of the disease was not fully recognized, and treatment was mainly expectant. After a period of four days the abscess suddenly opened spontaneously and a copious discharge of pus occurred, from which the patient was quickly suffocated and immediately died. Dr. Blodgett thought that too much stress could not be upon the necessity of quickly inverting the patient so as to allow the contents of the abscess to escape from the mouth, as the amount of pus was frequently much greater than could have been anticipated, and the danger of immediate death from suffocation is always present It would seem that in hardly another form of surgical disease was timely and judicious operative interference more urgently demanded than in cases of retro pharyngeal abscess

Dr Blodgett asked if necrosis of the vertebra or hypothic deformity were ever produced by a purulent process located in immediate contact with the vertebral column

Dr Du Bois replied that this has not been observed, owing doubtless to the acute character of the disease as well as to the fact that some form of acute meningeal inflammation would probably be induced by the invasion of the vertebral column in the rapid manner in which this would occur from a pharyngeal process, and that a fatal result would almost of necessity ensue before necrosis or exfoliation of the bony tissues could occur

ROCKY MOUNTAIN MEDICAL ASSOCATION

Fourteenth Annual Meeting

The fourteenth annual meeting of the Rocky Mountain Medical Association was held in the parlors of the St Charles Hotel, New Orleans, Wednesday, April 29th, 1885

The President, Dr George Sutton, of Aurora, Indiana, occupied the Chair, Dr John Morris, of Baltimore, Md , Secretary

The following members were in attendance Drs N S Davis, Parsons, Shively, Toner, Sutton, of Pittsburgh, Stormont, Harding, Hibberd, Helm, Pollock, Sutton, of Aurora, Ind , Bartlett, and Morris Honorary members present Mrs Hibberd, Mrs Helm, and Mrs Morris

The Secretary reported the deaths of three members during the year Dr A B Hovey, of Tiffin, Ohio, Dr George F Hilliard, of Evansville, Ia , and Dr J S Moore, of St Louis Mo

The President then read his address, which was a most interesting and scientific paper, embracing a geological and archæological study of the immense plateaus west of the Rocky Mountains At the conclusion of the address a resolution of thanks was passed, with a request that the address should be published in some scientific journal

The Association adjourned to meet in St Louis the first Wednesday in May, 1885

JOHN MORRIS, Secretary

FOREIGN CORRESPONDENCE

LETTER FROM BERLIN

(FROM OUR OWN CORRESPONDENT)

Microscopical Notes—Imbedding

Imbedding in Paraffin The object may be hardened in any fluid medium, alcohol, Muller's fluid, osmic acid or corrosive sublimate Here it should remain for 24 to 48 hours Then remove to chloroform, oil of bergamot, oil of turpentine or oil of cloves Allow the object to remain here from one to 24 hours, until it is saturated Then remove to soft paraffin (a little turpentine or bergamot, or medium in which the object has been soaking, should be mixed with the paraffin, to make it softer and to keep it fluid at a low temperature) Place the vessel with the paraffine and object in an oven at as low temperature as it will remain fluid Allow the object to remain in the fluid paraffin from one to 24 hours Then place it in melted hard paraffin, let it cool after fixing the object in the position desired

To mount on glass slides—Objects colored in toto Pour a thin solution of shellac in alcohol over a clean glass slide, with a soft pencil moisten the surface on which you wish the section to rest with creosote, using the smallest possible amount Cut sections dry and place them in series on the surface moistened with creosote, with a fine brush or feather bring all parts of the section in contact with the creosote Dissolve the paraffin from the section by pouring benzine or xylol over it Cover specimens with Deck-glass and Canada balsam

Objects not colored in toto Cut the specimens and arrange in series on glass slides Add with fine pencil a drop of thin collodion to each section Let it dry Dissolve paraffin as before Place in absolute alcohol for 15 minutes Color sections on slide with any coloring solution Return slide and section to absolute alcohol, allow it to remain here ten minutes Mount in Canada balsam

Imbedding in Celloidin Buy the celloidin dry and dissolve it in equal parts of ether and absolute alcohol Let the specimens remain in absolute alcohol from one to three days, in order to dehydrate them Then put them into thin celloidin, alllowing them to remain there for 24 hours Pour off the thin celloidin and add thick celloidin In this the specimens should remain another 24 hours Remove the specimens to paper box or to cork Allow the celloidin to harden partially, add thick celloidin until the object is sufficiently colored Let it harden to the consistency of rubber Place in 70 per cent alcohol and allow to remain here until needed Cut your sections under alcohol and never allow them to get dry

How to bring out Endothelium Expose mesentery of frog and pour over it a 27 per cent solution of nitrate of silver while in the body Then wash in distilled water Dissect out mesentery and stretch it over a cork Pour over it a solution of coloring matter—hematoxylin — then remove it to alcohol Cut the sections under alcohol, and slip the section on to the cover glass, which is also under the alcohol Mount in balsam

Points to remember Sections that have been washed in distilled water must be mounted in gum glycerine, those soaked in alcohol can be mounted in balsam Acetic acid brings out nuclei, does not affect micro organisms Iodine colors nucleus Solution of silver nitrate, one-fifth per cent , stains the cement substance between the cells, also the nerve fibres and ganglion nerve cells A little salt solution will neutralize the silver solution Caustic soda swells up the elastic tissue fibres, but dissolves the non elastic fibres Liquor potassæ leaves micro organisms unaltered

Weigert's double stain. Mix together a saturated watery solution of aniline 100 cm. (aniline oil 1 part, dist. water, 3 parts) and saturated alcoholic solution of fuchsin, 11 cm. Stain well and wash in distilled water, then transfer to alcohol for ten seconds, and place in the following solution for two or three hours: Distilled water, 100 cm.; Saturated alcoholic solution of methyl blue, 20 cm.; formic acid, 10 minims. Then wash in alcohol, pass through clove oil and mount in balsam.

Koch's method of staining for tubercle bacilli. First stain in alkaline methyl-blue (mixed with a 10 per cent. sol. of caustic potash) for 24 hours, or for one half to one hour at a temperature of 40° C., then stain in a concentrated solution of vesuvin. Wash with water, then with alcohol, and mount in Canada balsam. Another method is: First filter and heat a watery solution of aniline oil. Add enough of a saturated solution of fuchsin to give a metallic lustre from the service. Let the cover glass remain here from two to five minutes. Then transfer to blue solution (saturated sol. of methylin blue in 20 parts nitric acid, 30 parts alcohol and 50 parts water) and let cover glass stay in about two minutes. Wash in distilled water, dry between two pieces of blotting paper. Mount in balsam.

Permanent specimens of micro organisms. Place the sections in a shallow dish with the coloring matter. Leave there until well colored. Take it out with a needle, wash it in distilled water, then in alcohol and leave it in the latter until the excess of coloring matter is removed. Spread it out on object glass and put a drop of oil of cloves on it. Drain off the excess of oil and add a drop of Canada balsam, in chloroform or benzine, and cover with cover glass. In leprosy, the specimen is stained with magenta, then washed in distilled water, then stained with methyl blue, washed and mounted. The micrococcus of gonorrhœa and of croupous pneumonia are best stained with methyl-blue and vesuvin. The anilin dyes in use are methyl blue, methyl-violet, vesuvin, Bismarck brown, magenta, fuchsin, rosanilin, gentian violet, Spille's purple, eosin, dahlia, purpurin, and iodine green. The washing is to be carried out in all cases, except with tubercle-bacilli and the bacilli of glanders, with distilled water, then with alcohol. Lustgarten's stain for syphilis is as follows: First harden in alcohol for twelve or twenty four hours, then place for two hours in a dye composed of eleven parts of a concentrated alcoholic solution of gentian violet and 100 parts of aniline water at a temperature of 104° F. Then wash with absolute alcohol, and place for ten seconds in a permanganate of potassium solution (1½ per cent.). Then transfer to pure sulphurous acid and allow them to remain until all excess of color is removed. Then wash in distilled water, and pass through the permanganate solution again. Then wash again in sulphurous acid, and so on until *all color* is removed. Mount in oil of cloves after extracting the water with alcohol.

In the course of a lecture not long ago, Dr. Grawitz said that the round or formative cells, in acute cases, came from the blood corpuscles, and in chronic cases from proliferation—a position which probably he would find some difficulty in proving. He was probably desirous of harmonizing the Cohnheim and Virchow schools, and did not wish to seem to be, even, lacking in respect for his great master. It certainly is possible that the formative cells may come from both the blood-corpuscles and the connective tissue. Time and time again I have seen the two kinds of cells, the one having all the appearance of leucocytes, while the second kind contain two or three nuclei. The epitheloid cells become stellate or spindle shaped. After a time these processes grow out and become converted into fine fibres, together with some of the substance of the cell itself, the rest of the protoplasm remains as the fixed connective tissue cell. Neighboring cells send out fibrillæ, which communicate and form fibrillated connective tissue.

H. R. P.

DOMESTIC CORRESPONDENCE

HYSTERO-CATALEPSY

Dear Sir:—Owing to the general infrequency of this disease, as well as the rarity of its coming under the observation of every practitioner, even in the most lengthened term of experience, I deem it incumbent upon me to report my case. Having had charge of one of our largest asylums for girls for the past seven years in which this young woman was raised from infancy to womanhood, now serving in the capacity of assistant, it was only within the past year that my attention was called directly to the unusual phenomena in her case.

She is about 30 years of age, of good general health, aids frequently in the washing and ironing of the clothes of the inmates, but not exposed, as there are permanent fixtures in the main building. She had been somewhat irregular as to her catamenia, often premised by and accompanied with pain, as in ordinary dysmenorrhœa. I had ascribed this condition somewhat to more or less dampness of the garments at her waist from splashing when washing clothes, and prescribed accordingly for the immediate relief of the trouble, and ordered suitable tonics during the inter-catamenial period. Yet her general health was always good, she always ate well, and complied promptly with the requirements made of her. I have never examined her *per vaginam*, since she is a virgin, I have never felt that I should destroy her virginity by the insertion of a speculum. The pathognomonic features being indubitable in such a case, even the least caution observed would detect them, and I imagine that the same could detect the artistic malingerer.

Since nothing is known of the pathology of this disease, it would be *apropos* to denominate it one of the neuroses. Manifesting itself as it does, coincidently with her catamenia, I consider the consociation of the two terms *hystero catalepsey*, suitable, both to define origin and nature of the disease. When I saw her in the midst of a cataleptic condition I found her to be a most perfect counterfeit of death, even the respiration was so slightly superficial that one would not detect it, and with a feebly soft compressible pulse To verify my diagnosis to the matron of the asylum, I lifted her arm in mid air, and releasing my hold, it remained until I forced it down by some little pressure, and likewise I elevated her right foot with the identical result The general rigiditas corporis was typical, just as instantaneous; she would utter a piercing shriek as if in pain, and toss about violently, and subside into a low moaning condition, ultimately in to a comatose state, when not violent in her seizures she would alternately laugh, cry, and talk at random Even the freely appearing menses would not cause an immediate arrest of the phenomena, yet to facilitate the flow, I would have stupes (*of turpentine and hot water*, ʒj Oj) applied to whole surface of abdomen, repeated conformably to her tolerance and restoration During the first attack, I gave her ½ gr morph sulph hypodermically, with controlling benefit, shortening the the attack The second attack was controlled by chloral and bromide of potash compounded in enema opii, repeated as indicated In each of her attacks or seizures, the duration was four or five days before perfect restitution was effected, and save an extreme prostration subsequently she suffers no inconvenience She is now at her post, and upon the next seizure, I will make more minute notes as to pulse, temperature, character of urine as also exact duration of attack from incipiency to termination I have placed her upon a strictly tonic treatment

GEORGE W MONETTI, M D

285 Camp street, New Orleans, June 20, 1885

THE INTERNATIONAL CONGRESS COMMITTEE

EDITOR JOURNAL AMERICAN MEDICAL ASSOCIATION

Dear Sir —I notice in the report, as published in the JOURNAL, of the proceedings of the meeting of the Committee of the American Medical Association on the International Medical Congress, that my name appears among those present at the meeting I was not present, and I do not approve of what was done at the meeting Yours truly,

WM PIERSON

Orange, N J, July 8, 1885

HYDATID TUMORS OF THE BRAIN

Sir —Allow me to call attention to two points in the paper by Dr R Harvey Reed, on "Hydatid Tumor of the Brain," published in the JOURNAL of July 4th (1) The term hydatid tumor should be, and usually is, limited to the echinococcus cyst, the larvæ of the Tænia echinococcus or Hydatid tape worm The terms "cysticercus" or "measle" should be used in describing the larva of the Tænia solium (2) The cases reported by Dr Reed cannot as they stand be accepted as instances of hydatids or of cysticerci The description of the cysts is too meagre, and a microscopical examination does not appear to have been made, without which it is in many cases impossible to determine the parasitic nature From the position of the cysts in the lateral ventricles in each case, it seems probable that Dr Reed has been dealing with the not uncommon hydatidiform cysts of the choroid plexuses, structures which have on several occasions been sent to me as possibly parasitic

Interest in the subject of echinococcus disease in this country must be my excuse for thus encroaching on your space I am, yours etc,

WILLIAM OSLER

University of Pennsylvania, July 7, 1885

NECROLOGY

WILLIAM T WRAGG, M D

The custom of commemorating, in some form the death of one who has impressed his fellows by his virtues or his actions is of very ancient date, and its continuance at present is not only evidence of its propriety, but of its filling a want that the mind of every person admits to exist In reviewing the life of him who so lately has been taken from amongst us, one cannot fail to be reminded that death has removed from our ranks a faithful, efficient and esteemed brother, one who loved the profession, sought its advancement and respected all its usages

On the 30th of May, 1885, Dr William T Wragg, one of the oldest and most esteemed physicians of the State of South Carolina, died at his residence in the City of Charleston, S C He was born near Georgetown, S C, removed with his parents, Major and Mrs Samuel Wragg, to Charleston in 1819 He entered the South Carolina College, where he graduated in 1827 He chose the medical profession as his pursuit through life, entered the office of Dr J M Campbell as a student, and attended the "Medical College of the State of South Carolina" for three years, graduating at that institution in March, 1830 In the following May he went to Paris with Dr J E Holbrook, professor of anatomy in this college, where he pursued his medical and surgical studies, and after visiting all the hospitals, made the wards of Hôtel Dieu his constant care, every day found him in attendance at the visits and clinique of the greatest surgeon and diagnostician of his age, Dupuytren Here also lectured at that time the great physiologist and vivisector, Magendie A few weeks after his arrival the famous revolution of July, 1830, broke out, and hundreds of men, women and children filled the wards of Hôtel Dieu, with every kind of wound, gunshot, sabre, bayonet, cannon ball, and wounds from stones and other missiles Here Dr Wragg learned those lessons which gave him success in his practice in after years

Soon after his return home, Dr Wragg entered upon the practice of his profession, and continued it successfully to the time of his death In 1847, Dr Wragg was made treasurer of the "Roper Hospital Fund," a fund bequeathed to the Medical Society of South Carolina by Mr Thomas Roper with which to build a hospital His administration of this office shows how careful he was of trust reposed in him, and how his judicious management has enabled the trustees to execute the testator's benevolent intentions The fund was under Dr Wragg's management from 1847 to the day of his death—37 years—

and notwithstanding unavoidable losses during the late war, is at the present time nearly double the amount of the original sum

He was an able and constant contributor to the *Charleston Medical Journal* He was conspicuous for his erudition and professional acquirements, while his purity and devotion of character, his urbanity and professional courtesy were known and appreciated by all Dr Wragg was held in high esteem by the medical profession, and at a meeting of the physicians of the City of Charleston, on account of his death, after eloquent remarks by some of his most intimate friends, the following resolutions were unanimously adopted

Resolved, That in the death of our brother and ex-President, Dr Wm T Wragg, this Society has sustained the loss of an eminent and esteemed member

Resolved, That our sympathies are extended to his family in their great bereavement

Resolved, That in consideration of his faithful services as custodian of the "Roper Fund" for thirty-seven years the Society erect a tablet in this Hospital to his memory

Resolved, That a copy of these proceedings be transmitted to the family of the deceased, and to the daily newspapers of the city

MISCELLANEOUS

College Changes —Recently Dr N Senn, of Milwaukee, Wis , has accepted the Chair of Principles and Practice of Surgery, previously occupied by Dr R L Rea, in the College of Physicians and Surgeons, of Chicago, and Dr Christian Fenger the Chair of Clinical Surgery in the same College

In the Chicago Medical College, Medical Department of the Northwestern University, Professor E O F Roler has been transferred to the position of Emeritus Professor on account of continued ill health, and Dr W W Jaggard has been appointed Professor of Obstetrics, the duties of which position he had discharged for the last two years with the highest degree of satisfaction on the part of both Faculty and students

Dr N S Davis, Jr , Lecturer on Pathology and Pathological Anatomy, will fill the place vacated by the resignation of Prof Fenger He has just returned from a few months stay in Vienna and Heidelberg, where he devoted his time almost exclusively to a study of morbid anatomy and pathological histology

International Notification of Infectious Diseases —At the recent International Sanitary Conference held in Rome, two propositions relating to international notification of cases of infectious diseases were passed at the last session of the Technical Subcommission These propositions are as follows

1 The Technical Committee expresses the wish that the International Conference affirm the necessity of publishing a bulletin of international statistics for each important city, a bulletin on a uniform plan, and publishing each week the total deaths and the number of deaths caused by each infectious disease, and particularly by cholera and by yellow fever

2 As concerns cholera and yellow fever, notification of the first cases which appear in different localities, and particularly in maritime ports, should be immediately sent by telegraph to the various governments

The application to yellow fever was introduced by the delegate from the United States as an amendment, the proposition as first reported having taken no account of this pest of the West Indies, which from an American point of view is quite as worthy of consideration as is the Asiatic pestilence which has almost exclusively occupied the attention of the International Sanitary Conference of Rome —*Medical News*, June 27, 1885

Prizes of the University of Amsterdam —The Faculty of Medicine of the University of Amsterdam has given the subject of the prize dissertation for 1886 as "The Therapeutics of Iron and the Absorption of Iron Sutures" The essays must be delivered to the Secretary of the Senate by May 1886, and the result will be announced, and the gold medal awarded to the author of the best essay in September, 1886

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY, FROM JULY 4 1885 TO JULY 10 1885

Captain Valery Havard, Assistant Surgeon, assigned to duty at Ft Wadsworth, New York Harbor

First Lieutenant M C Wyeth, Assistant Surgeon, assigned to duty at Ft Wayne, Mich (S O 140, Dept East, July 2, 1885)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING JULY 11 1885

Byrnes, J C , Passed Assistant Surgeon, detached from the "Powhatan" for duty at Navy Yard, Norfolk, Va

Cordeiro, F J B , Assistant Surgeon, to the "Powhatan" as relief of P A Surgeon Byrnes

Curtis L W , Assistant Surgeon, to Philadelphia for examination preliminary to promotion

Drennan, M C , Surgeon, placed on waiting orders

Fitzsimmons, P , Surgeon duty on Receiving Ship "Franklin," Norfolk Navy Yard continued until July 1, 1886

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE TWO WEEKS ENDED JULY 11 1885

Fessenden, C S D , Surgeon leave of absence extended sixteen days, on account of sickness, July 1 and 9, 1885

Bennett, P H , Assistant Surgeon, granted leave of absence for twenty two days, July 9, 1885

CORRIGENDUM

Sir —In writing to the *Lancet* on the diagnosis of submersion during life or after death I made a mistake in translating the French word mousse ' to moss which is evidently incorrect It should be *froth* In fact the correction was made in the *Lancet* of the 21st March p 547, which I must ask you to be good enough to correct also as I find the article referred to has been reproduced in the Journal of May 23

I am Sir
Yours obediently,
Paris Correspondent of the Lancet

Paris June 19, 1885

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol V | CHICAGO, JULY 25, 1885 | No 4

ORIGINAL ARTICLES

EMMET'S OPERATION WHEN SHALL IT, AND WHEN SHALL IT NOT BE PERFORMED?[1]

BY GUSTAV ZINKE, M D ,
OF CINCINNATI OHIO

MR PRESIDENT —Trachelorrhaphy, or Emmet's operation for the cure of laceration of the cervix uteri, and its consequences, is recognized by many, in this country at least, as a measure productive of much good, and a great advancement in gynecology Though the English and the Germans are slow in accepting it, and although in France we find as yet not one who will openly endorse it, the operation seems to be, nevertheless, a legitimate and permanently fixed resource for the relief of some lacerations of the cervix and their results And how could it be otherwise? The injury is readily diagnosticated, and its mischievous influences easily appreciated and recognized as such by skilful men What treatment could be more simple, more rational, and more effective? There should not be any doubt upon this question Still there are some, even in this country, who are disposed to look with disfavor upon the operation So much has been said and written on this point by the ablest gynecologists of this country, that no argument of mine is needed here Experience and time will accomplish what argument has so far failed to do With the knowledge I have upon this subject, in my judgment there is but one point left to be discussed, and that is *When shall we, and when shall we not perform this operation?* Upon this there is great diversity of opinion To aid in the removal of this dissension and establish greater harmony, is the object of this paper For this purpose I have addressed to a large number of our most prominent gynecologists and surgeons of this country and abroad, a letter containing a number of questions, calculated to elicit their latest opinion regarding this subject I sent it in printed form, with sufficient space after each question to allow a concise answer I adopted this course to obtain an answer from all as nearly alike as possible, and to the point I also took pains to send these questions to those known to be more or less opposed to the operation, or, if you please, "not much impressed with the importance of trachelorrhaphy"

The following is the letter which accompanied the questions as seen in the record

CINCINNATI, O , February, 1885

Dear Doctor

Owing to the great diversity of opinion respecting the beneficial effects and proper sphere of usefulness of EMMET'S OPERATION, I have concluded to write an essay upon this subject, which is to be read before the American Medical Association, convening at New Orleans, La , the latter part of April next In order to make the paper complete and valuable, I have deemed it wise to obtain the latest opinion of those men in the profession, in this country and abroad, who, by reason of their position and professional attainments, are best qualified to judge I am well aware that this subject has been discussed and written upon from every aspect by many , but it must also be admitted that it has never been fairly decided, indeed, that to day it is shrouded in greater uncertainty than ever It is my desire to put on record the statements of all who will be kind enough to answer and present the same in concentrated form, from which those interested in the matter now, and hereafter, may draw their own conclusions, which, I hope, will harmonize more than at present Hoping that you will consider the importance of the subject, and favor me with an early reply, by answering briefly the questions in the accompanying blank, I remain,

Yours fraternally,
GUSTAV ZINKE, M D ,
413 Elm St , Cincinnati, O

The letter, as well as the questions, will need explanation in so far as they refer to the beneficial effects and proper sphere of usefulness of Emmet's operation, and not directly to what the caption indicates Anyone looking over the questions and answers, however, as given in the tabulated record, will be convinced that I could not have adopted any other way to arrive at conclusions at once unbiased and free from the suspicion of being one-sided I could not have asked simply and solely When do you and when do you not operate? The answers to the questions as propounded, put each one on record fully, by giving his reasons why he would in one case, and not in another, or, perhaps, never perform the operation

Let us now consider these replies and see if from them we may gather sufficient evidence to decide when we should and when we should not operate

DR GUSTAV ZINKE —I have the highest regard for Emmet, and have learned much from his works But "Emmet's operation" I look upon as entirely unnecessary I perform the same only when, by retroflexions, the laceration of the cervix interferes with orthopædic treatment I can furnish many cases in which women, in spite of extensive tears, were and remained perfectly well, that pregnancy was not interfered with, and that the rents caused absolutely no complaint For this reason I do not perform this operation, and I am firmly convinced that in a few decades it will be forgotten

With many respects, FRITSCH
Breslau, March 27, 1885

---

[1] Read in the Section on Obstetrics and Gynecology at the Thirty sixth Annual Meeting of the American Medical Association

DR GUSTAV ZINKE, Cincinnati, O —*Dear Doctor* —I have so recently gone over the whole subject of laceration of the cervix in the third edition of my book, just published, that I have nothing more to add I have there answered all the objections that have been brought against the operation Little more is to be said on the subject until the profession has carefully carried out my directions as based upon over twenty years of experience and close study Where there has been failure to gain the results I have claimed, the burden must rest on the operator to show the cause

The operation has long since passed out of my hands, and so fully endorsed that I have no fear for its future The great point is to check the abuse, which is fearful Everyone feels competent to perform it, it is done without the proper preparatory treatment, and with no special purpose I believe in nine cases out of ten, where it is done, or attempted, the execution of the operation is defective and without any benefit to the patient You have here a most fruitful field for your paper, but to discuss the merits of the operation within its proper range, is futile Yours truly, T A EMMET

89 Madison Ave , N Y , March 5, 1885

DR GUSTAV ZINKE, Cincinnati, O —*Dear Doctor* —I have not as yet been impressed with the great importance of lacerations of the cervix—excepting where they are extensive My operations have been confined to the latter class, and the results have been satisfactory Respectfully,

Rome, Ga , March 2, 1885 ROBERT BATTEY

DR GUSTAV ZINKE, Cincinnati, O —*Dear Sir* —As I have had no occasion myself yet to perform Emmet's operation, I feel scarcely justified in giving an opinion, and am not in a position to answer the queries in the form which accompanies your letter My experience is drawn only from a few cases in which I have seen Prof Simpson operate, and would watch the progress of the cases

There is no evidence that a lacerated cervix is in itself a condition of much importance in its relation to cervical catarrh and cellulitis it is of importance I fancy that the cellulitis we often see, especially in the left broad ligament, is due to slow septic absorption from the laceration , so also the ectropion will keep up, if not cause cervical catarrh On the other hand, lacerations are so frequent that we must look on them almost as a physiological occurrence, just as we do a *slight* perineal laceration Yours faithfully,

A H FREELAND BARBOUR

Edinburgh, March 17, 1885

DR ZINKE —*Dear Sir* — I regret that I have no statistics to aid you in your very valuable inquiry as to the merits of Emmet's "op " I have operated very little My patients do not come to me from abroad, and consequently will not submit to ulterior measures, as those will who go to men of more reputation I have seen some cases in which I thought it desirable — many where it would have been done by others, I think I have too few data to feel satisfied in my own mind, but my impression is that there are cases of unhealed laceration (ectropion) *demanding* the operation, and for those cases it is a great improvement

As to the *cicatricial tissue* doctrine, I feel very doubtful, and so expressed myself in review of 1st edition of Emmet's work (*Am Jour Med Soc*) Yet in last edition he brings many *facts* in support I operated in a case week before last—repaired cervix and peritoneum at same time I had exhausted local and general treatment in the case, and nearly two years ago advised the operation, which she then refused Three days after operation, she was free of back ache for the first time in months Of course I am waiting with great interest the ultimate result, for the ache had returned somewhat when I last saw her

There has been a wonderful change of doctrine by Emmet as to the operation, to which I call attention in review of 3d edition, to appear in April No *American Journal*

If you use this, please use no name

I am very truly yours, ———

March 1, 1885

Question 1 Do you believe lacerations of the cervix uteri to be an important factor in uterine and pelvic disease?

Wm Goodell, Ellwood Wilson and Charles Meigs Wilson, of Philadelphia, J Taber Johnson, of Washington, David Prince, of Jacksonville, Ill , Willis P King, of Sedalia, Mo , Wm H Taylor, of Cincinnati, W H Baker, of Boston, E W Jenks, of Detroit, T B Harvey, of Indianapolis, J Byrne, of Brooklyn, Chrobak, of Vienna, and W T Howard, of Baltimore, answer "Yes, ' or "I do "

T Gaillard Thomas says Yes, decidedly so

Geo T Engelmann It is one of the conditions which facilitates and assists the development of certain diseases directly leading to other

A Reeves Jackson When sufficiently extensive, yes

W H Byford I do when attended by chronic subinvolution or chronic congestion, not otherwise

Herbert M Nash, of Norfolk, Va My observations in the past twenty years force me to the confirmed opinion that laceration of the cervix uteri is frequently a most important factor in both

G H Lyman, of Boston I do most emphatically, especially if there be eversion

R S Sutton, of Pittsburg It is very frequently so It is often the prime factor

Paul F Mundé, of New York Most decidedly None more so in certain selected cases

Ely Van de Warker, of Syracuse Only when of such extent as to become a persistent focus of irritation

James B Hunter, of New York I do—one of the most important

Chaucy D Palmer, of Cincinnati I most certainly do

M D Mann, of Buffalo Very important and common

J Mathews Duncan, London, Eng "No "

Thad Reamy, of Cincinnati Yes, without doubt

P J Murphy, of Washington The deeper lacerations owing to impeded circulation may be the cause of pelvic disease

Wm T Lusk, of New York In certain cases, Yes

W Gill Wylie, of New York Yes, when the cervix torn is diseased—say cystic degeneration, etc , and it may become diseased after being torn, say in puerperal septicæmia, etc

I E Taylor, of New York Not necessarily By removing the pathological condition of the cervix uteri, whatever that may be, by the treatment your own judgment and experience may dictate, the laceration will be either perfectly overcome, or so much so that the laceration will not sustain the pathological state previously existing, and the laceration, whether it is a deep unilateral one or not, will be restored, and the length of the os tincæ will be diminished so much as to present almost a natural appearance

Q 2 Do you believe fissures of the cervix uteri a cause of uterine and pelvic disease?

A Reeves Jackson, Charles Meigs Wilson, David

Prince, C D Palmer, and E W Jenks, answer "Yes "

Engelmann answers Rarely

Gaillard Thomas Yes, but to a less extent

Ellwood Wilson says "Sometimes "

Nash May be a cause

Lyman I do, but to a less degree than the former

Sutton answers If deep

Mundé The smaller the rent or fissure the less, as a rule, its pathological significance

Van de Warker I have rarely seen mere fissures cause pelvic symptoms

Johnson I think the pathological and reflex disturbances are large in proportion to the extent of laceration, but not always

Hunter Not necessarily unless there is cicatricial tissue

W P King Not necessarily, but in some cases I have known a small fissure with granular erosion to cause severe reflex pains

Goodell Fissures, if skinned over, do but little harm, and I rarely touch them

Mann If by fissures you mean slight lacerations, I do not May be only slight laceration, showing but much deep scar tissue which will do great harm

Duncan, Lusk and Murphy say "No "

Wm H Taylor By "fissure" I understand less than "laceration," therefore less important

Baker If sufficiently extensive I do

Reamy Yes, to some extent

Harvey I do so far as pain and nervous disturbauce are concerned, but not attended with so much displacement

Byrne Not invariably, but frequently

Chrobak Yes, but in a different way

Howard As distinct from lacerations, only exceptionally

Wylie May not degeneration of the mucous membrane resulting in atrophy, contraction, and hyperæsthesia, as in imperfect development may?

I E Taylor "The same as above "

Question 3 State your theory in what manner a lacerated cervix will or may cause disease of the uterus, its surrounding tissues, and in parts remote

Thomas By creating local hypertrophy and glandular disease and by reflex influence

Engelmann Destruction of sphincter muscle leads to subinvolution—the open surface—exquisitely sensitive and irritable—leads to reflex symptoms by reason of friction—and inflammation by absorption

Jackson The exposure of the intra cervical structures to the vaginal secretion excites inflammation, first of the endometrium, secondly of the parenchyma

Byford I believe it perpetuates subinvolution and its consequences

E Wilson By allowing the uterus to sag downward in the pelvis and by the ectropion of the cervical mucous membrane it acts as a constant source of irritation, preventing involution The general reflex symptoms are more marked than the local ones

C M Wilson By preventing involution, acting as a constant source of irritation, and causing disturbances of general health, as manifested by the gravity of reflex symptoms

Nash In the majority of cases it seems to be the cause of irritation followed by both cervical and corporeal endometritis, erosions, profuse leucorrhœal discharge, and in my opinion these conditions forerun or may distinctly cause cellulitis and even pelvic peritonitis Displacements are common, and they are sometimes attended by numerous and annoying reflex symptoms

Lyman Local congestion of the body and mucous lining of the uterus, with neuralgic pains, hystero neurosis, by reflex action on distant parts, etc I believe all such should be repaired, if only as a safeguard against epithelioma

Sutton It arrests involution, causes catarrh of the canal, prolapse of the lining of the canal of the cervix, congestion of the entire cervix, prolapse of the uterus, retroversion, drag upon the round ligaments, congestion of the cellular pelvic tissue, constipation, nervous phenomena, vesical irritation, indigestion, backache, pains in the groins, etc

Mundé First, subinvolution of the uterus, then hyperæmia, then menorrhagia, or, first, subinvolution, then hyperplasia, or, attendant on subinvolution and hyperplasia, chronic eversion, hyperæmia and hyperplasia, or, immediate or remote pelvic cellulitis, peritonitis or lymphangitis Finally, epithelioma of eroded lips

Van de Warker By acting as a persistent focus of local irritation, thus inducing a morbid degree of uterine and pelvic hyperæmia

Johnson It causes endometritis, chronic cellulitis, favors subinvolution and all its evil effects Displacements on account of increased weight and size, and relaxed supports Leucorrhœa, cervical and uterine catarrh Increases quantity and frequency of menses By irritation and congestion favors abortion, predisposes to epithelioma, and causes many reflex nervous disturbances

Hunter By impairing the circulation By keeping up engorgement of uterus, and thus causing displacements, etc

Prince By constant irritation inducing local chronic inflammation, and by reflex action, hyperæmia and hyperæsthesia of near and sometimes distant parts through reflex action

King 1st By causing septic poisoning when recent 2d By acting as a point of irritation, causing pelvic congestion 3d Granular erosions, by failure to heal 4th Laying the foundation for epithelioma by degeneration of granular tissue

Palmer By delaying and preventing complete involution, creating erosions, granular degeneration of the cervix, and eversion of the cervical lips, and finally, hyperplasia, cystic degeneration, uterine displacement, and it may be epithelioma

Goodell By its keeping up an irritation of the uterine organs, and by an afflux of blood to them, causing growth, hypertrophy, etc

Mann In several ways, by causing cellulitis, subinvolution, endometritis, hypertrophy of neck, reflex action on distant organs, displacement, etc Believe it to be a common cause of cancer of cervix

Duncan It may be the seat of local irritation—so called ulceration

Taylor (Cincinnati) Keeping up engorgement, irritation, or pressure upon nerves, exhausting discharges

Baker By occasioning pelvic cellulitis, subinvolution of the uterus, hyperplasia of cervix, and increasing the tendency to the development of cancer of the cervix uteri

Jenks Ectropion and attrition of the everted lips furnish a constant source of irritation, causing congestion, connective tissue growth, and retarding involution and reflex symptoms, immediate and remote A laceration which has healed wholly or in part, may cause symptoms like the above on account of cicatricial tissue in which nerves are involved

Reamy Arrests involution by two or more processes, viz Disturbs normal nervous function 2d, the processes of repair of the injury which nature has to set up demand so much blood in the tissues as to prevent the fatty degeneration essential to involution

Harvey Fissures and slight lacerations cause inflammation, with exacerbations at the menstrual epoch More extensive lacerations cause cystic degeneration, hypertrophy, induration, displacements, and all kinds cause cellulitis, reflex irritation in remote parts, and predispose to epithelioma

Murphy A deep laceration of the cervix uteri interferes with the circulation of that organ, gives rise to hyperplasia, prevents involution, and by these means will induce hypertrophy, and may give rise to any one of the displacements frequently accompanying a lacerated cervix

Byrne Directly by its retarding involution, and more remotely as a cause (frequent) of abortion

Lusk By leading to disease of cervical and often corporeal mucous membrane Hence catarrhs, hæmorrhages, uterine enlargement, etc Many patients suffer from forms of remote reflex neuralgias, but these are not constant

Chrobak The effect of extensive laceration consists in the irritation as well as inflam of the param, perhaps, too, in the changes of the cervical mucous membranes resulting from the injured cervix and its exposure to the vaginal secretion

Howard When a laceration is accompanied by catarrhal ectropion of the cervical mucosa, this is increased by the attrition of the inflamed surfaces during respiration and locomotion, and this constant source of irritation creates reflex disturbance

Wylie If diseased when torn it will not heal, but evert swell, and prevent involution, etc Or if torn and infected by sepsis it may cause septicæmia, either local or general

I E Taylor Laceration of the cervix uteri, when treated by closure before attending to the treatment of the pathological condition, unless it is directly after the laceration, an acute laceration will not succeed, and even then I have my doubts whether it will not produce more trouble than when the operation is deferred till after convalescence If the laceration is so severe as to produce a secondary hæmorrhage—which I should consider as exceptionally rare, then a closure may be attempted If not, then the operation should not be performed, for in very many cases, if there has been a slight laceration, the patients have perfectly recovered, especially if proper treatment is adopted

The substance of these answers is about as follows

1 Septic poisoning at the time of its occurrence
2 It causes pelvic cellulitis
3 “ “ “ peritonitis
4 “ prevents involution
5 “ acts as a point of irritation
6 “ causes pelvic congestion
7 “ “ cervical and corporeal endometritis
8 “ “ profuse leucorrhœal discharge
9 “ “ displacements of the uterus
10 “ “ erosions and eversion
11 “ ‘ hyperæmia }
12 “ “ hyperplasia } of cervix as well as body
13 “ “ cystic degeneration
14 “ “ numerous reflex symptoms, especially from irritating cicatricial contraction
15 “ “ menorrhagia
16 “ “ sterility, by preventing conception, and by causing abortion
17 “ “ lays the foundation of epithelioma

No one present, familiar with this subject, will expect me to discuss the manner or the order in which one or all of these consequences may arise, every one of them seems to be conceded as being a natural result of laceration of the cervix uteri, and have been discussed at length in the latest text books (especially by Emmet and Thomas), in the *American Journal of Obstetrics*, and in the reports of the American Gynecological Society, also numerous original articles (read before the various societies all over the country) can be found, together with the discussion that followed their reading So profuse is the literature regarding the results of this accident, that it would be imposing upon good nature to cite the names of all the authors, and therefore I chose simply to refer to the books and journals in which most of the writings on this matter can be found

4 Q Do you believe laceration of cervix a cause of sterility?

Jackson, C M Wilson, Sutton, Van de Warker, King, Palmer, Goodell, Baker, Jenks, and Byrne, answer simply in the affirmative Thomas says, “sometimes, unquestionably”, Engelmann, “frequently”, Byford, “only when attended with the morbid conditions mentioned before”, E Wilson, “yes, if extensive”

Nash answers I do, in some cases I have known abortions to occur from this cause Lyman says Not necessarily, but often so Mundé Yes, if there is cervical catarrh (as usual) or cicatricial contraction of cervical canal Johnson In many cases by producing conditions named in answer to 3d question In some cases no effect seems to follow Hunter thinks that it is “often a cause of miscarriage”

Prince answers, “sometimes”, Mann, “most certainly”, Duncan and Murphy answer, “no” Taylor says, “only if extensive” Reamy, “in many cases” Harvey, “I do, although many conceive” Lusk, Not as a rule May lead to abortions Chrobak Yes, but mainly in consequence of complications Howard In some cases, certainly, but not in all" Wylie If diseased sufficiently to *at all times* cause acid or abnormal secretions

I E Taylor By no means I have several cases at present in my private practice whom I have attended in several confinements, and who had partial laceration, and a few up to the vaginal junction have had children, and one of them every fifteen months They were safely delivered, and no further laceration occurred In some of the patients who became widows, and others not having any more children, the laceration has healed and the cervix presented a more natural appearance In a few the cervix has become in form and appearance natural This morning two cases were seen, and it would be a question with some whether the women had a child from the appearance of the cervix The os tincæ has either assumed the round, small opening, or a small transverse slit

Seventeen answer with "yes," and three with "no" simply, while the others qualify an affirmative reply by adding "if extensive," "sometimes," "if there is profuse catarrh or cicatricial contraction of the canal," etc Sterility as an effect of laceration, has been violently assailed and ridiculed by some, but V A Hardon, *American Journal of Obstetrics*, 1881, in an excellent paper, describes in a striking manner how a lacerated cervix may be the cause of disease and sterility, and require sewing up for a cure, and how a cervix slit open by the knife to cure sterility, remains inert as a factor in disease and accomplishes the end desired There is no doubt that we see instances, occasionally, of even extensive lacerations of the cervix in which pregnancy occurs and is continued to the end of gestation, but these are, seemingly, exceptional cases I have seen such cases, they all had aborted before, however, and did abort again, though they used great care, during gestation

5 Q Do you believe that Emmet's operation, if performed early and properly, will, to some extent or entirely, prevent uterine and pelvic disease?

Jackson, C M Wilson, Prince, Baker, Jenks, and Byrne answer, "Yes" Duncan answers, "No" Thomas says In most cases Engelmann It will certainly prevent such diseases as are dependent on laceration Byford Yes After its complications have to a great extent been cured by preparatory treatment E Wilson Yes, usually Nash I do, hence advocate an early operation, though my cases have all been operated on for the relief of distressing results Lyman says I know it will prevent such diseases as would supervene if left untouched, and in consequence of the laceration itself See answer 1 Sutton says It may do immense good Mundé answers, Without doubt, in well chosen and proper cases Van de Warker Where the operation is indicated, I believe it to be curable

Jos Taber Johnson says I believe it will to some extent, or entirely prevent such uterine or pelvic diseases as are often sure to follow its occurrence We see, however, all the above named and other uterine and pelvic diseases where no laceration exists King Yes, excepting when disease of the pelvic organs immediately follows the laceration Palmer Yes, in properly selected cases Goodell I think it will, to a great extent, do so Mann Yes, unless cellulitis has occurred in childbed Taylor To some extent

Reamy In many cases prevent, in some cases cure Will always do good in properly selected cases, properly done But the most experienced gynecologist may now and then be deceived as to which are proper cases Harvey I do, where no other causes supervene, and I believe that slight laceration in time produce the so called "Cervical Metritis" ulceration and subinvolution and that the earlier the operation, the greater the success

Murphy I believe that uterine and pelvic disease always accompany a lacerated cervix, and ought to be relieved before the operation is performed Lusk answers Don't know Many patients with lacerations have no disturbances resulting I have only operated when symptoms made it necessary

Chrobak I regard Emmet's operation as one of the best and most certain for preventing disease of the uterus

Howard I do But if done too early it is apt to fail, and may even increase the mischief, while if badly done, it had better not be done at all No operation is more abused, or oftener badly done

Wylie In some cases, but preparatory treatment is nearly always needed, and it is by removal of diseased tissue rather than restoring continuity that a cure is effected

I E Taylor, of New York If it is in a recent case, I do not If the laceration is *bilateral* or *tripod*, without overcoming the diseased condition of the cervix, to some extent, or completely, then the operation for closure I do not believe will prove as successful and as beneficial till the pathological condition is treated and restored When this is accomplished, the laceration will be reduced in size, if it had been deep long, a more just estimate could be formed whether the bilateral should be treated by closure or not, and the tripod in the same manner If the lacerations, bilateral or tripod, should have reached the vaginal junction, which is very rare, I believe and the diseased condition of the mucous membrane not heal perfectly, and there is an eversion of the labia of the cervix, which is most generally the case, although eversion may occur from a positive or relaxed condition of the cervix, without laceration In that class of cases I have preferred amputating the anterior and posterior labia, or the three points of the cervix (the tripod) Believing that this surgical method is far better, and more simple than the attempt at closure for the bilateral or tripod lacerations After the removal of the parts the cervix heals up, and leaves a perfectly natural appearance of the cervix, cleanliness being only resorted to, and not covering the amputated stump as Syme has done I will not enlarge on this point, but refer you to my monograph in Bellevue and Charity Hospital Reports for 1876, on "amputations of the cervix uteri in procidentia uteri, and complete eversion of the cervix uteri," also, Vol 1, Transactions of the American Gynecological Society, for remarks "on

Emmet's Paper on Flexions " Emmet himself was much opposed to amputation of the cervix, except in special pathological conditions, and adopted Syme's method of covering the stump by the mucous membrane In a clinical lecture reported by Coe in the *American Journal of Obstetrics*, February number, 1885, page 174, he says, in reference to the treatment of lacerated cervix "I desire to say here that I have been greatly misunderstood concerning amputation of the cervix I find about twelve or fifteen cases of laceration every year, in which the injury has been so extensive that it would be bad surgery not to amputate It should be only thought of in the case of women who are pretty well advanced in life" His objections have always been directed "against the removal of an apparently elongated cervix, when the real condition has been not an elongation, but a prolapse" Now, my friend Emmet has not considered the subject on this point—see my paper on Physiological Lengthening of the Cervix Uteri, etc I have been present at operations for laceration of the cervix uteri which I must confess I should never have considered of this nature Emmet himself does not perform the operation as often as he has done The very proposition to repair a laceration for rent by delivery of the child, has won many and many a professional gentleman to consider that was the correct and true and proper treatment My own experience with the views I entertain and from long experience and a large practice is that this is only justifiable in a few cases The frequency of the operation is to be condemned The operation will, I believe, in a few years, not be performed as many times as it has, and possibly in only a few cases It will be relegated to the same tomb with the posterior division of the cervix, or the bilateral incision of the cervix uteri, for they are things of a day Any new operation on the cervix uteri must run the gauntlet and be tested by time But, alas! these important and vital organs have been cut and sewed up so much and in such great numbers, that it is, from the injury it has undergone, not to be considered an organ that conservatism is required, but must always be treated surgically, as one author has said, "It is only to be treated surgically"

These replies are sufficient to prove that the question could not have been put to greater advantage, for it simply forces one to the conclusion that they are nearly all agreed that when the operation is performed early and properly, in well selected cases, it will, and in many cases entirely, prevent such uterine and pelvic disease as usually arises therefrom

Q 6 Do you believe that Emmet's operation is absolutely necessary in certain cases? If so, specify the class of cases

Duncan answers "No" Thomas says Yes, in all of great lacerations Byford gives no answer

Engelmann It is necessary in all cases in which symptoms—which can not be allayed—depend upon the laceration

Jackson Yes Cases in which the laceration extends beyond the crown of the cervix so as to permit eversion of the lining membrane In laceration of less extent after childbearing has ceased, in order to lessen danger of malignant disease

E Wilson Yes, where the rent is more than a quarter of an inch in length and when hypertrophy of the cervix exists with ectropion C M Wilson Yes, if the rent is extensive, and if the symptoms, local or reflex, are of a serious nature

Nash Yes, especially those accompanied by eversion and endometritis, which if cured or improved invariably return unless the operation is made, those accompanied by menorrhagia, displacements, etc It is especially useful in a hyperplastic condition of the organ, favoring complete involution

Lyman In case of reflex disorder, intense local congestion of womb and ovaries, leucorrhœa and general nervous derangement Sutton Yes, in cases where subinvolution and cervical disease exists

Mundé Yes, absolutely necessary in large gaping rents with everted and eroded lips, and freely secreting cervical canal, in subinvolution and areolar hyperplasia, with villous degeneration of endometrium and menorrhagia, dependent on the laceration, in habitual abortion and conditions given under question 3 Van de Warker Yes, when it results in conditions stated in question 3, and when in advanced age it prevents senile involution Prince Yes, when the conditions in question 3 exist

Johnson I do In cases where the above-named (question 3) and other pathological conditions follow its occurrence, and are not curable by other means. If local treatment would cure, don't operate

Hunter When there is much hypertrophied and cicatricial tissue

King Yes In any case where disease of the pelvic organs or tissue is directly traceable to this as a cause

Palmer Absolutely necessary, in most cases of deep seated, bilateral or stellate lacerations, even before secondary changes have taken place Also, in less marked laceration, if these changes are present as results

Goodell Cases of ectropion, cases of tender and neuralgic cicatrix, cases of hypertrophy, cases in which cancer is hereditary in the family

Mann In cases where symptoms are serious enough to demand it, and where there is hereditary cancer

W H Taylor In extensive lacerations Baker also says Yes In extensive laceration, with eversion and cystic degeneration

Jenks Yes In cases where local and constitutional symptoms indicate uterine or pelvic disorder, and examination reveals the existence of cicatricial tissue, with more or less connecting tissue growth, the neck enlarged, and particularly if the nabothian glands are notably developed

Reamy Whenever the laceration has left marked deformity, as ectropion, or when hard cicatricial tissue is in the field of repair, whether the tissue causes pain or reflex irritation or not, I consider the removal of it necessary in order to guard against cancer

Harvey In all cases where uterine symptoms cause the woman to consult a physician

Murphy It is necessary in deep lacerations of the cervix uteri, and ought to be performed for the reasons above stated

Byrne Only in cases where the injury has been considerable, and where eversion of the cervical membrane exists, or dense cicatricial tissue occupies the seat of injury

Lusk Yes In prolonged cervical catarrh, in hæmorrhage from uterine cavity, and in reflex neuralgias, in constant backache, and where walking without unusual fatigue is impossible

Chrobak Absolutely necessary In some cases of extensive ectropion and severe symptoms

Howard I have fully given my views under this head in the report I send you

Wylie Yes, when deep seated glands and follicles are diseased to remove them operation is necessary, and I think Emmet's the best

J E Taylor This has been answered above

The sum total to all replies received on this inquiry, is that the operation should be carefully and perfectly performed

1 When pathological changes exist which depend upon the laceration, and which cannot be disposed of by other treatment

2 When the laceration is deep, bilateral or stellate, with a history of cancer, even before secondary changes occur

3 When in advanced age it prevents senile involution

4 Where subinvolution and cervical disease exists

5 Where there are large gaping rents

6 When there is villous degeneration of endo*metrium*

7 In menorrhagia

8 In habitual abortion

9 To lessen the danger of cancer after child-bearing period

10 Where there is cicatricial tissue in the rents, causing reflex symptoms

Q 7 Do you believe that every lacerated (not fissured) cervix will cause, eventually, uterine and pelvic disease?

Thomas, Engelmann, Johnson, Prince, King, Duncan, W H Taylor, Jenks, Byrne, Lusk and Howard give a simple and decided negative

Jackson, Hunter, Palmer and Baker answer Not necessarily

Sutton and Harvey answer simply affirmatively E Wilson and C M Wilson As a rule Byford Not always, but often

Nash The great majority Some may escape by reason of unimpaired uterine ligaments, but very few Lyman Perhaps not universally, but in the great majority of cases

Mundé No Many a case, even of large laceration, will heal over and never produce any symptom whatever Van de Warker Only when of the extent named in 3d question

Goodell I do not think that every tear will, but I think that the great majority do cause pelvic troubles of some kind

Mann No, by no means Many cases seem to suffer very little from it, or not at all

Reamy No Anterior laceration frequently heals without operation, leaving scarcely a trace, and in other forms of moderate degree no evil is manifest

Murphy No, because, as above stated, pelvic and uterine disease usually accompany a lacerated cervix

Chrobak Comparatively few lacerations produce symptoms so severe as to render the operation absolutely necessary

Wylie No If healthy, even when extensive may do no harm

J E Taylor By no means Too many cases have been seen to adopt that view

This seems positive evidence that we have exceptions, and that all lacerations do not contribute to uterine and pelvic pathology Those who have observed the greatest number of cases, and who have practiced longest and most skilfully in this department, are found among those who believe that not every laceration produces diseases of the uterus and its surroundings

Q 8 If not, state approximately how many such cases you have observed?

Byford, Hunter, Goodell, Lusk and Chrobak give no answer, and C M Wilson and Sutton answer "None" Duncan says Never observed (except immediately—not eventually)

Thomas says Impossible to do so Lyman; Very doubtful, certainly a small number Mann "cannot tell—quite a number" Wm H Taylor "cannot answer definitely" Baker Cannot state number of such cases which have been observed. Jenks Unable to say how many I have seen hundreds Reamy Quite a number, cannot say how many Howard I can give no accurate idea of the number of cases I have seen not requiring operation, but they are not infrequent Van de Warker A very large number in which I did not believe the operation called for

Engelmann says I have seen quite a number of such cases, but by far the minority in cases of laceration Byrne Very many—perhaps hundreds Jackson In many cases could not believe the symptoms were dependent upon the laceration Murphy: About 50 E Wilson gives "six" Nash About 40 cases Wylie About 600 times Mundé One hundred or more I have no positive notes on this particular point, but have often declined to operate. Johnson says I have seen many cases where no symptoms were complained of Prince Have not kept statistics, but I have seen numerous lacerations unattended with inconvenience King Not many I believe that 95 per cent of real laceration will, ultimately, cause disease of some kind Palmer But such results (mentioned before) are so constant as to form the rule The proportion upon results is very small and exceptional Harvey If upon examination of a case laceration is found, I know of no means of explaining it away as a factor in the etiology J E Taylor Answered above

This is one of the most important questions, and yet one which has been replied to very unsatisfactorily A certain degree of uncertainty is manifest;

most of my correspondents guess at it, only one or two make exact statements Yet it must be considered that in the practice of nearly every one, numerous cases have occurred, in which a lacerated cervix excited none of the affections that usually are said to arise therefrom

Q 9 State approximately or exactly, if you can, how many times you have performed the operation?

To know about how many operations have been made by those who favored me with an answer, would give, I thought, weight and strength to their opinion Unfortunately, some who have had a very large experience, and who are known to have operated hundreds of times, can not, even approximately, state the number of their operations Dr Emmet refers me to his last edition, and there I find that up to the time of its publication, he has apparently operated over 600 times It is safe to presume that Dr Gaillard Thomas has probably performed the operation an equal number of times Lyman, of Boston, simply states that he operated on a considerable number Byford, of Chicago, and Taylor, of Cincinnati, do not respond to this question at all Not willing to be accused of exaggeration, I have rated the combined experience (although I am satisfied it is too low an estimate) of—

Emmet, Thomas, Lyman, Byford and W H Taylor, of Cincinnati,		as comprising about	1500	Cases
G T Engelmann	about	(40-50)	45	Cases
A Reeves Jackson	"		200	"
Ellwood Wilson		exactly	128	"
C M Wilson		"	12	"
Herbert M Nash	"		22	"
R S Sutton	"		100	"
Paul F Munde	"		200	"
Ely Van DeWarker	"		120	"
Jos Taber Johnson	"		30	"
James B Hunter		at least	200	"
David Prince	"	'6-8)	7	"
Willis P King		exactly	7	"
C D Palmer	"	(35-40)	37	"
Wm Goodell		exactly	263	"
M D Mann	"		90	"
W H Baker	"		400	"
E W Jenks	"		200	"
Thad Reamy		exactly	324	"
T B Harvey	"		200	"
P J Murphy	"		50	"
J Byrne	"		200	"
W T Lusk	"		300	"
Chrobak	"		10	"
W T Howard	"		100	"
A H F Barbour			0	"
J Mathews Duncan			0	"
W Gill Wylie	"		200	"
			4,945	

Here we have then, in condensed form, the experience of 32 operators, nearly all of whom have a reputation throughout the country, some over the whole civilized world, men who are known to be conscientious, active and zealous workers in the profession, all of which, I think, will go far to substantiate the conclusions given at the end of this paper

Q 9a How often for the restoration of the cervix simply?

To this question Thomas Byford, Mundé, Goodell, Lusk, I E Taylor and Chrobak give no answer

Engelmann, Nash, Sutton, Van de Warker, Prince, King and Duncan answer "Never"

Jackson answers 20 or 30 times E Wilson About 20 per cent C M Wilson 1 time Lyman Often, as preventive of impending trouble Johnson Never for the sake of operating, only for the cure of symptoms

Hunter About 25 per cent Palmer To restore cervix before pathological changes have occurred—3 times

Howard "cannot say" Mann "cannot separate causes" Wm H Taylor "cannot answer definitely"

Baker Can not divide them without weeks of work in going over records of cases Jenks Can recall to mind but one, and that was a month after childbirth In this instance there was almost constant hemorrhage from laceration of circular artery Reamy Never, because have always had in view this and its present and ultimate consequences Harvey In about one-fourth the cases Byrne Can not say, but not a majority Wylie Rarely, never lately

This question I asked for the purpose of ascertaining how many there are who believe in restoring a lacerated os, before pathological changes have occurred, and about how many times the operation has been performed for that purpose alone

Q 9b How often for the relief of pathological changes and reflex disturbances depending thereon?

Thomas, Byford, Goodell Reamy, Murphy and Chrobak give no answer

Engelmann, Sutton, Van de Warker, Prince and Lusk answer "always"

Jackson says All the others (see *9a*) E Wilson says About 80 per cent C M Wilson 11 times Nash Always In five cases operation for lacerated perineum was done at same sitting Lyman More often for this class Mundé Much more ofter than for question *9a* Johnson About 30 times Hunter About 75 per cent King Seven Palmer Some 35 times Mann "cannot separate causes"

Duncan answers, "Never" Wm H Taylor "cannot answer definitely" Baker Can not divide them without weeks of work in going over records of cases Jenks Have always operated on account of pathological changes in the uterus, or reflex disturbances depending thereon Harvey Probably one hundred and fifty Byrne In most cases operated upon Howard "cannot say" Wylie About 200 I E Taylor Not by closure, but by amputation as above referred to

This, of course, includes all the other operations, with the exception of those that may be contained among those who did not answer questions *9* and *9a*

Dr Emmet and Dr Thomas have confessed, on more than one occasion, that to day they do not operate as frequently as formerly, because experience has taught them that oftentimes the operation had been performed unnecessarily (of Byford, and Lyman, and Taylor, Cincinnati, I have no knowledge regarding this point), but whether by that they mean to say that they operated in cases of laceration without complication, as well as in cases in which the complications were looked upon as following a torn cervix, can only be conjectured For this reason I wish they had answered at least question *9a* Since I have estimated the number of their operations so low already, I will permit them to stand, and count them with those cases in which the operation was performed only for the relief of pathological changes, local as well as general, and if afterwards it is discovered that some of them were performed in cases of uncomplicated lacerations, let them be counted with those for which they were not credited

Q 10 What have been your immediate results respecting union and relief?

Thomas says Almost uniform success Engelmann First intention Jackson Only know of four cases of non union Relief of symptoms did not always follow the other cases Byford gives no answer E Wilson says Always good, non union in only one case Never have had serious results follow C M Wilson Good Nash They have all been successful in union, and were relieved of the symptoms for which the operation was done One invalid eight years could not walk 200 yards, relief entire Lyman Have been very rarely obliged to repeat the operation The relief has in every instance been satisfactory Sutton answers In my early cases I had union of both sides fail occasionally In the last two years failure to make union has occurred only once Mundé About 92 per cent union, certainly 75 per cent relief from symptoms for which operation was done Success depends on following proper rational indications Van de Warker Union has never failed Sometimes have been disappointed in general results Johnson Good I had one case of acute cellulitis follow, and in one case sutures all tore out I operated again and cured the case so far as I know Hunter says Very satisfactory Non-union rare exception Relief comes later, six months to a year Prince Benefit King Had perfect union in all, and all gave relief Palmer In the great majority of cases the immediate results have been satisfactory as to union and local relief Goodell I have very rarely failed to secure union, but I have sometimes failed to get relief Mann Have only failed of union four times None lately Relief in at least 95 per cent of cases Duncan gives no answer Wm H Taylor says Cannot answer definitely Baker Almost universally good Union by first intention in nearly every case, and no complication save pelvic cellulitis in one case, death by septo pyæmia in one, and phlebitis in one Jenks Have usually had union, but not immediate relief look for the latter in about three months I have been unable to follow up all of my cases Have failed to obtain union in five cases I desire to add as a partial answer, that I deem it of great importance to secure union in plastic operation about the generative organs of women, that a condition of health must be attained This is done in many cases only by local and constitutional treatment Reamy says Union in almost every case Harvey Good as to union in most cases, failure in about 5 per cent Good in most all where all cicatricial tissue was cut away Not good when this was not done Murphy Union by first intention has followed in almost all cases Byrne Almost universally successful Tusk Failure to unite has occurred perhaps a half dozen times Amount of relief variable—often complete, and always sufficient to repay for the operation Chrobak Absolute first intention in every case, and perfect success Howard After I gained experience almost always good Wylie Never failed to get union and almost always effected a cure

From this we learn that, as a rule, good will follow the operation, not always immediately, yet oftentimes in the course of three to six months thereafter, that union but rarely fails, and that it is more apt to be obtained when the cicatricial tissue has been well taken out, or the parts have been effectually treated for the relief of certain diseased conditions prior to the operation The answers to this question also furnish evidence that the operation is accompanied by some danger, since in one instance death occurred from septo pyæmia, and in one from phlebitis

Q 11 What have been your remote results respecting union, relief and sterility?

Thomas answers Very generally good, and Engelmann Excellent, conception rapidly follows Jackson says In a few cases (perhaps 10) sterility lasting several years seem to have been cured by the operation

E Wilson says Excellent, have delivered 12 women on whom I had previously operated, one twice Recurrence of tear in two cases, and C M Wilson says Good

Nash I am not able to report positively on this matter 10 of my patients in the childbearing age are now under observation as to the bearing of the question Lyman Impossible to say, as a large number have been hospital cases Sutton I have not been able to follow many of the cases Some have become pregnant

Mundé 25 per cent of cases under my knowledge conceived after the operation, undoubtedly many more did so but were not reported

Van de Warker And large number of cases relieved of sterility, and Johnson My remote results have been good I believe it cures sterility instead of producing it

Hunter says Highly satisfactory, Prince, "can't say", Palmer Largely, very beneficial Wm H Taylor "can not state definitely", Jenks I am unable to answer, except as above, as the patients have been from various parts of the country Chrobak "cannot answer", and Howard says I have not followed up many cases, as they were generally from a distance, and I have long curtailed obstetric practice

King says that Two out of seven have borne children, one of them two since the operation

Goodell On the whole I think that operation does not cause unfruitfulness, as I used to think, and the remote results have been better than the immediate ones.

Mann Sterility cured in small number, but have not been able to follow cases Baker Good in overcoming sterility Reamy Properly done does not cause but often cures sterility Good in large per cent of cases Have had failures as to relief of reflex and other symptoms It is not a "*cure all*" The lesion does not cause all, nor will the operation cure all pelvic disease nor yet all reflex nervous symptoms

Harvey Very encouraging and successful in recent cases, and where there has not been too great a degree of induration Some failures where the opposite conditions exist

Murphy My observations have been few, theoretically I believe it causes sterility

Byrne In cases of sterility from this cause, conception has usually followed a successful operation

Lusk Good, so far as a check upon tendency to abort

The answers to this question must of necessity be more or less indefinite, from the fact that most of my correspondents devote themselves entirely to gynecology, and receive many patients from different and very distant parts of the country They know not what the remote results have been, in probably the majority of cases, on the other hand, one can easily observe that the answers from those whose practice is more limited, or rather local, are much more definite In general, the replies are favorable respecting relief of spmptoms, cure of sterility or unfruitfulness, as Dr Wm Goodell prefers to call it, and will aid considerably in permanently establishing Emmet's operation

Q 12 When, in your opinion, is Emmet's operation contra indicated?

Thomas answers In cases of subacute pelvic peritonitis and cellulitis which may be excited into acuity during pregnancy, and after the menopause if no eversion and hypertrophy exists

Engelman says Acute and subacute inflammation or exacerbation of chronic trouble Jackson When there are present evidences of pelvic inflammation

E Wilson Where peri uterine adhesions exist, and the general health of the patient militates against the operation C M Wilson In cases where other surgical procedures are contra indicated, and where the uterus is immobile

Nash In active inflammation of the uterus and its surroundings I have almost invariably used local treatment to relieve all active disease before operating

Lyman When there is neither eversion, local congestion or reflex disturbance In such cases the only excuse for it would be the possibility of growth, and of this the patient should decide for herself

Sutton When the ovaries or tubes are diseased, when the uterus is very irritable, when the laceration is not accompanied by symptoms of uterine disease

Mundé When not indicated, *i e*, not the rent *eo ipso*, but the symptoms produced by the rent, call for the operation Acute and chronic pelvic inflammation

Van de Warker In lymphadenitis in pelvic inflammation and its products, phlegmon and ulcers

Johnson When no sympsoms exist which demand it, and where any cellulitis exists

Hunter answers Chiefly in cases of acute cellulitis, and Prince Never, only it may not always be necessary

King says When reflex troubles are traceable to other causes, with manifest hydro or pyo salpinx, it should not be done That is, Emmet's operation is contra indicated, when Tait's operation is manifestly indicated

Palmer When there is co-existant or inter current chronic peri or para metritis The granular condition may forbid, but the para metritic complication is the chief contra indication

Goodell In fissures of no great magnitude, and in all cases in which the ectropion is slight, and yields to local treatment

Mann When pelvic cellulitis and peritonitis are not well cured, or cancer is developed

Duncan says Almost always, and Wm H Taylor Not needed in limited laceration

Baker When there is any acute or subacute inflammatory action of cellular tissue or peritoneum around the pelvis

Jenks Where there is no ectropion few or no cicatrices, no particular enlargement of the uterus, no Nabothian bodies apparent Also where there are no symptoms that can be considered of uterine origin

Reamy All cases where laceration is slight, and has been followed by no symptoms referable to it—during pregnancy, during presence of acute or sub acute metritis, peritonitis or pelvic cellulitis, cancer of neck or body of uterus When patient is suffering of pulmonary consumption, or any other fatal malady

Harvey I can not see why it should not be tried in all cases where laceration or fissures exist, provided epithelioma has not invaded the parts so deeply that we can not hope for union

Murphy It is contra indicated when the lacerated cervix is accompanied by uterine and pelvic disease, and ought not to be performed unless in the graver lesions of the cervix

Byrne In chronic pelvic cellulitis anæmia or other depraved state of the system

Chrobak says The operation is more frequently performed than necessary, it is only indicated, with the exception of general indications, when acute inflammation exists

Howard You will find this answered in my report (See his report)

Wylie When mucous membrane is healthy Before any serious complications such as endometritis, parametritis and perimetritis are cured, when uterus is fixed and *not freely movable*

I E Taylor It is contra indicated in a large number of cases, and only necessary in the class of cases I have referred to as above

These answers may be summed up as follows

1 In acute and sub acute inflammations
2 In pelvic cellulitis
3 In pelvic peritonitis
4 In lymphadenites
5 When ovaries and tubes are diseased

6. When uterus is very irritable.
7. Never the rent, eo ipso.
8. Pregnancy.
9. After menopause, if no eversion or hypertrophy exist.
10. Manifest hydro or pyo salpinx.
11. Where there is no ectropion.
12. Where there are no Nabothian bodies apparent.
13. When there are no symptoms of uterine origin.
14. Not needed in limited lacerations, anemia or fissures.
15. When local treatment gives relief.
16. When peri uterine adhesions exist.
17. When uterus is immobile.
18. When there is neither eversion, local congestion nor reflex disturbance.
19. When there is cancer of neck or body of the uterus.
20. When patient is suffering of pulmonary consumption or other fatal malady.

The summing up and condensing of all the answers to these questions has been a laborious yet interesting work. I might here abandon my inquiry and rest content with what can be learned from it, and leave my audience, as well as those who may chance to read it in the future, to draw their own inferences, but I feel that my effort to create more harmony will have been in vain, if, after studying the different views of the various operators, I should not attempt to answer the question that has called forth this essay. I do not flatter myself that my views of this subject, gained from the above, will agree with all of you, nor with all those who will read it hereafter, but I present them with the hope that they may aid to clear the way to a better understanding. The above inquiries certainly furnish abundant proof of a great difference of opinion among gynecologists as to when it would and when it would not be proper to perform the operation. They may be divided into three classes: those who advocate operative interference in every lacerated cervix, those who do not endorse the operation at all, and those who deem it a necessity in some "well selected cases" only.

That the operation is too often performed, that cases are operated upon in which no indications for it exist, that as a consequence the results looked for are not obtained, that the patients, so far from being relieved, are subjected unnecessarily to procedures not free from danger, and are occasionally even followed by unfavorable results, rendering the patient worse instead of better, is the opinion of many. *The abuse, not the use of the operation, has done the mischief.* In the heat of debate many will defend the grounds they have taken, and fortify their position by apparently plausible arguments. But the quiet looker-on—the unprejudiced and diligent student of this question—will come to the conclusion that the charges made are only too true. The accompanying tabulated record, as well as Dr. Emmet's letter, will testify to this statement, and I do believe that many of the gentlemen who have performed this operation are willing to admit the same.

Like any other new remedy, this operation has been resorted to because of its evident utility, and too much has been expected from it. That, however, might have been looked for from its first announcement. The same fate has followed every newly invented operation. But while this is no reason that the operation should be abandoned, as some, especially from abroad, would have us to do, there is certainly to-day no longer any excuse for performing this operation for every laceration we find. We all have heard the remark, and probably have made it ourselves, I know I have, that if a lacerated cervix is the cause of all the ills text-books and authors attribute to it, then every rent in that portion of the womb ought to be sewed up.

Here it is that we must pause and reflect upon the experience of others as well as our own, and when we do so, one is compelled to admit that *it is not true that every tear in the cervix is productive of evil, and that it is not good practice to stitch up every os, simply and solely because it sustains a slit, nor is it fair to assume that because of certain diseased conditions coexisting in, around, or near the cervix or uterus and its appendages, an operation is necessary to a cure.*

To be better understood, I have drawn two diagrams to illustrate the various degrees of lacerations as we observe them in practice. Figs. 1 and 2 almost explain themselves. Fissures are, indeed, lacerations—lacerations which, in my opinion, have been more or less extensive, but have failed to heal perfectly, leaving a depression or gutter in the cervical canal, to which the name fissure has been applied.

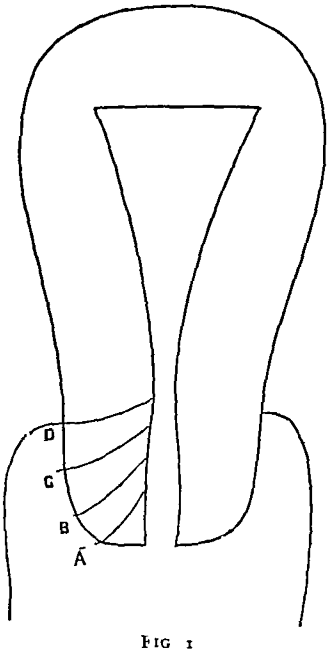


FIG. 1.

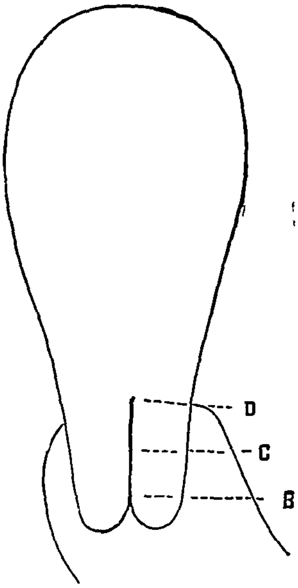


FIG. 2.

a (Fig. 1) represents my idea of a fissure. From *a* to *b* constitutes a laceration of the first, from *b* to *c* a laceration of the second, and *c* to *d* a laceration of the third degree. Lacerations extending through and beyond the cervico-vaginal junction, if not amounting to a rupture of the uterus, may be considered lacerations of the fourth degree.

The following are my conclusions, drawn from the above tabulated record, from text-books, from the numerous articles referred to, and my own clinical experience, extending over a period of seven years as assistant of Prof. C. D. Palmer's Clinic, at the Medical College of Ohio.

1. It is evident that *the operation has been performed unnecessarily for symptoms similar to but other than*

those arising from lacerations of the cervix. Further, that *it has been done imperfectly, even without preliminary treatment, in many more,* and *the failure to give relief,* as reported by several, *is due to these two causes.*

2. That from our present knowledge we cannot, at this time, arrive at any definite conclusion, from the fact that many of the so called consequences of lacerations of the cervix uteri are not settled beyond doubt.

3. That every one engaged in this department should carefully select his cases, and try every known means to give relief before recourse is had to an operation.

4. The operation should never be performed *eo ipso* in cases of simple fissures or lacerations of first and second degree.

5. In cases of eversion and disease of the cervical or corporeal cavity, or both, although attended by hyperplasia and displacement, it has been observed that all the symptoms abated and the parts returned to their natural condition, and that no laceration was discoverable after alleviative measures were instituted first, which alone caused the parts to return to a normal condition.

6. That there are some cases of extensive lacerations of cervix that seldom give rise to any inconvenience, and that, therefore, an operation should be deferred until symptoms arise that will call for its performance.

7. The operation, although indicated, should never be performed until, by preparatory treatment, the parts have been brought into a healthy condition.

8. Near, and during, the climacteric period the operation should be postponed as long as possible, and the patient not exposed to any risks, since in many cases all the symptoms subside under proper treatment, and never return on account of senile involution.

9. The operation is justifiable in cases of lacerations of the third and fourth degree, without complications, if there is a history of malignant disease in the family.

10. The operation may be performed with perfect propriety in young women, as a preventive, if the laceration is bilateral and extends up to the cervico vaginal junction, or beyond it, even though there are no pathological changes; indeed, it seems to be the duty of every one, who observes a lesion to that extent, to urge the operation.

11. The operation is justifiable in any degree of laceration, and in rare instances even in fissures, when there exists cicatricial tissues, productive of reflex disturbances, annoying in character, and not tractable to any other treatment.

12. The operation is absolutely indicated in all extensive tears of the os, in which the cervix is everted, its mucous membrane and Nabothian follicles diseased, and especially if there be granular or cystic degeneration present, provided the parts have been restored to a healthy condition by palliative treatment.

ON REPEATED DOSES OF CASTOR OIL, ESPECIALLY IN CERTAIN SKIN DISEASES IN CHILDREN[1]

BY L. DUNCAN BULKLEY, A.M., M.D.,

OF NEW YORK.

Castor oil is such a common and well known remedy that it would seem that but little could be written with regard to its employment in medicine. Everyone is thoroughly acquainted with its characters, dosage and use, and even the laity appreciate its value and employ it freely without medical advice. But, as far as I can learn, its use is confined to the administration of single doses, now and again, as necessity demands to remove offending contents of the gastro intestinal tract; with the single exception, perhaps, of the well-known mode of its employment in emulsion, in frequent doses, for the relief of diarrhœa and dysentery.

In the present communication, however, I wish to call attention to the value of castor oil in certain cases, in which frequent and repeated doses of some size, and continued even for a considerable period, will produce effects difficult to obtain by other means. I will first give in brief the notes of a case, that of a child, in whom its virtues were strikingly exhibited, and which especially confirmed me in the practice now advocated.

The child, aged six years and a half, was brought to me suffering from chronic urticaria, which had existed off and on for some little time, and had resisted good treatment at the hands of others. The child was fairly developed, but of an earthy complexion, was restless, peevish, and complained continually of great fatigue. She had previously taken as a tonic an iron mixture, and also mixture of rhubarb and soda, but without benefit to her health; she had recently been in the South, and had contracted malaria which quinine held in check with difficulty. She was found to be the subject of urticaria, the wheals developing rapidly at any time of the day, and from no especial cause. When seen there was not very much of urticarial element present, but there was more or less of the papillary eruption left after the disappearance of the former lesions, constituting the disease known as urticaria papulosa. Her pulse stood at 94, of fair strength, the tongue was moderately clean. For some time previously she had complained of pain in the right abdominal region, and would call attention to it frequently. On percussion of the abdomen the right iliac region was found to present very considerable dulness, extending well up to the liver, and somewhat into the transverse colon; there was no special dullness on the left side. She had complained of diarrhœa, the movements, however, were ineffective, and often more or less lumpy.

She was ordered to take a teaspoonful of castor oil every night, and was also given an emulsion of castor oil with gum arabic and sugar and a little opium, to check excessive action. Twelve days later she was brought to the office having taken a teaspoonful of castor oil every night in the intervening time. This had never acted more than three times daily, and generally not more than once or twice The diarrhœa had been checked in two days, but she still complained of pain in the abdomen, sometimes in the left side, with which she had had two attacks of crying She looked very much better in general appearance, with less of an earthy color, and her appetite, which before had failed entirely, was now good On percussion the abdominal dullness was decidedly less, but still marked, the stools had contained more or less of lumps with each movement The administration of the oil every night was continued, and two grains of quinine were ordered to be taken before each meal About a week later she was again seen, and appeared to be still better in health, the pulse was 80, and the tongue clean The oil had been increased to a teaspoonful and a half each night, and lumps had ceased to appear in the stools, which presented only healthy fæcal matter The pain had ceased entirely in the abdomen, but there was now more general dulness over the entire abdominal region It was then attempted to administer again to her an iron mixture, with the continuance of the oil, but this shortly disagreed, causing her to sleep badly and to be restless and irritable, and it was discontinued, and an alkaline and bitter tonic given in its place About one month after the commencement of the castor oil it was recorded that she looked remarkably well, fat and round in the face, had lost the pale earthy look, and had gained two pounds and a half in flesh, the abdomen was resonant all over

---

[1] Read in the Section on Diseases of Children at the Thirty Sixth Annual Meeting of the American Medical Association.

The castor oil was still continued in moderate doses, producing one or two quite healthy movements Shortly after this the oil was omitted for a few nights, contrary to directions, and she began to be again troubled in her sleep, and felt poorly, and the urticaria which had disappeared very shortly after beginning the oil, returned in considerable degree The abdomen was found to be again dull on the right side, and the castor oil was returned to, with the result of producing shortly a resonant abdomen She was then given a mixture containing lactopeptine after each meal, which had the effect of inducing regular healthy action of the bowels The urticaria had ceased with the last administration of castor oil, and the child remained afterward in much better health, but on another occasion somewhat later the abdominal indigestion returned, and the castor oil was again returned to with good effects

In this case the little patient took the castor oil continuously for over one month, and for shorter periods on three other occasions In a number of cases of infantile eczema, even where there was not the evidence of obstructed bowel excretion, I have administered castor oil as in the preceding case with great advantage, in doses varying according to the age of the patient and the necessities of the case, never, however, so as to produce purgation, but only to excite a somewhat increased and healthy discharge from the intestinal canal

In one case, that of a boy aged about 8 years, the impetiginous eczema which had cropped out from time to time upon the face and scalp, yielded most happily to this course of treatment, but, as happens so frequently in public practice, the neglect of treatment for a period, together with bad dietary and hygienic surroundings, necessitated its use on several occasions This child had also ulceration of the cornea, and at several visits the mother would remark that this ulceration, which had resisted local treatment at the hands of oculists, yielded in a remarkable manner each time when the oil was administered

Acting on the suggestion mentioned in the last case, I employed this treatment by repeated doses of castor oil with very great advantage in a case of acne rosacea, complicated with persistent and rebellious corneal ulcerations, in brief as follows

Mrs R , aged 26, had had acne simplex and rosacea for several years, connected with and dependent upon great constipation, uterine disorder, and much general debility For many years she had been troubled with the eyes, having recurring ulceration of the cornea and much conjunctivitis very frequently For this she had been under skilled treatment, but never with anything more than a temporary improvement Time and again during the treatment of her acne rosacea she came with the eyes almost useless, and suffering greatly from them This condition was found to vary considerably with the state of her digestive organs and with the eruption upon her face, and several times the eyes ceased to give trouble for quite a period when the other symptoms improved Soon after the occurrence of the case just mentioned, she had another severe attack of ulceration of the cornea and conjunctival irritation She was then placed upon castor oil, taken every night in doses of from two to four teaspoonfuls This was taken continuously for something over a month, and the record was made that it had helped her general condition greatly, and her eyes in particular The eruption upon her face was better than it had been for a very long time Castor oil was still continued in connection with tonics, which before had proved inefficacious alone, and nearly a month subsequently it was noted that her general health was better than it had been for a long time, and that she had as yet had no return of the difficulty with the eyes She was seen subsequently, after an interval of about a year, and stated that from time to time she had returned to the castor oil treatment immediately that the eyes gave any indication of inflammation, and always with the happiest effect, a few doses sufficed to check this trouble, which before had invariably run on to producing very serious inconvenience and distress

Castor oil is also often of value in other conditions not associated with disease of the skin, as in the following rather striking case of chronic and recurrent tonsillitis

L B , a very bright, rather precocious, child of 7 years, came under my care December 14, 1883 He began to have attacks of throat trouble when but one year old, the tonsils becoming swollen and covered with small yellow points, as in ordinary follicular tonsillitis The attacks lasted one week, during which time he was generally in bed most of the time, and from that period until the date of his visit at 7 years of age, he had had recurrences of this throat inflammation every month, except when away from home in the summer, with very few exceptions, occasionally missing a month or two under active treatment With these attacks he would always have pain in the stomach and nausea, and latterly very great pain in the head The attacks were often preceded by slight chills, and before their occurrence the movements from the bowels would become lighter in color, and clay-like, up to the time of the attack Between the attacks the bowels were apt to be constipated, the sleep was bad and restless During the attacks the urine would become very high-colored, and afterward would throw down abundant deposits The last attack had begun two weeks before his visit, he having been out of bed only six days when brought for treatment, from his home in New York When first seen, the tonsils were found to be enlarged and covered with small cicatrices, and *presented a few very small yellow points* On percussion over the abdomen the liver was found to be considerably enlarged, protruding plainly below the line of the ribs The spleen was two or three times its natural size, and the abdomen appeared full and rather tense with gas, but considerable dulness was discovered on deep percussion In several places there was much tenderness on deep pressure

He was directed to take two teaspoonfuls of castor oil every night, and no other treatment Three days later it was recorded that the castor oil had agreed perfectly, and had acted gently upon the bowels, producing about one movement daily, which was a little loose, the first movements which occurred being lumpy He then returned to his home in a somewhat malarious district, continuing the oil as before every night, but in somewhat increased doses One month from the beginning of the previous attack, it was thought that he had a slight chill, but he did not take to bed as before The next day there was some little fever in the afternoon, and nausea at night, with a little soreness of the throat, which, however, passed off the next day He had omitted a dose or two of the oil just previous to this slight attack The movements had been somewhat light colored, but better than previously He was brought to the city from some two hundred miles distance, the second day after the slight chill just mentioned, that is, during the period when he should have had his attack The throat was then seen to be but little red, there was no ulceration, and he complained of no soreness He was then given a rhubarb and soda mixture in place of the castor oil, but this failed to be as efficacious, and two weeks after the last note his throat again became a little sore, although there was nothing to be seen The movements were again very light colored The castor oil was then returned to at night, and a mixture of chlorate of potash and iron was given for the immediate relief of the threatened sore throat The next day or two he had a little fever, but was able to come to the office, and shortly after he went to a country place quite free from malaria, but did not stay longer than a week or so He then returned to his home, continued the castor oil every night, and taking also the syrup of the lactophosphate of lime after each meal On March 22d, it was recorded that he had taken the castor oil continuously, two teaspoonfuls each night, and that he had not had any further difficulty with the throat, it being now full eight weeks since there had been any trouble at all The movements were still inclined to be rather light colored, but although living at home he remained entirely free from his throat disease until June 6th He then had a slight attack of fever with a little headache and sore throat, which, however, did not confine him to bed, there being no yellow points on the tonsils as before He had become rather careless in diet, and it was learned that the location and house in which he lived were in a bad sanitary condition

Other cases could be cited in children up to the age of ten years in which the castor oil was administered upon this plan for periods varying from two to four weeks or more, with the result of removing *abdominal dulness, and with it debility and a train of* unpleasant symptoms One particular case may be alluded to, in which a little child, three years and a half old, who had eczema in infancy and urticaria subsequently, was very greatly improved in health by the administration of the oil for a period of over five weeks During this time her appetite, which had failed entirely, returned with vigor She gained in flesh and color, and at the end of the period mentioned, her condition was as far different from that at first as could be imagined, greater than one often sees produced by any course of medication Various tonics previously given had failed to be of much benefit

The cases which I have here cited, together with a number of others, show that castor oil may be taken with advantage repeatedly for a considerable period of time In the boy with the sore throat this treatment was carried out for a period of almost six months, with few intermissions, he repeatedly taking it for a month or more without intermission

In regard to the mode of action of the oil, in these cases it acts unquestionably as a stimulant to the abdominal organs, the color and character of the movements from the bowels being the indication with regard to its use In those cases, which I believe to be not infrequent, where there is intestinal torpor followed by greater or less accumulation of fæces in the large intestine at either side or throughout its entire length, this plan of treatment is peculiarly happy and beneficial in its effects The apparently tonic effects following this course of treatment must be attributed largely to the improved absorption and assimilation which take place in the gastro intestinal tract, although it is quite possible that some portion of the oil thus taken acts as a direct nutrient Many cases of skin disease, especially urticaria, are undoubtedly attributable to reflex irritation, having its origin in the intestinal canal, and undoubtedly many cases of tonsillitis have their origin in like manner In repeated instances in my own family have I observed that beginning tonsillitis could be broken up almost immediately by the free administration of castor oil

With regard to the administration of this remedy, which is so often considered nauseous and repulsive, a few words may be added. Specimens of castor oil undoubtedly differ not a little in their qualities, and care should be exercised to secure a sweet, pure and fresh quality of cold compressed castor oil. To adults this drug is undoubtedly repulsive, but in view of the value of the gain which often results from its administration, I have found little difficulty in having a number of adults take it as here described, for a greater or shorter length of time. To children, however, if especial attention is not called to it, the remedy is not as repulsive as to those of older years, and young children are often seen to be very fond of it. In several of my cases in which it was continued for a considerable period of time, the children remarked that they did not find it at all an unpleasant dose to take.

With regard to the mode of administering castor oil, there are very many plans which may be adopted. I may first remark, however, that it is important that the remedy should be taken alone, and not with any other substance which may interfere with its action. I object most decidedly to having spirit, wine, or any such substances added to it, and prefer even that it should not be given in conjunction with orange, milk, coffee, etc. The plan I have usually adopted is as follows: The patient takes a sip of very cold ice water, or a small lump of ice, holding it in the mouth for a moment, and the oil is immediately taken in a single dose from a large spoon. The lips are then quickly and very firmly wiped or rubbed with a towel, and a drink of ice water is taken instantly afterwards. In this way those who have shuddered at the idea of taking the oil have found that it gave them little annoyance, and in this manner it is left free to act in the stomach without the presence of substances which might interfere with its operation.

In conclusion, I would add that in presenting this subject of the repeated administration of castor oil, I do not desire to place too much emphasis upon its value, nor to recommend it as a panacea even for the conditions previously alluded to. In almost all the cases in which I have employed it other remedies have been given either conjointly or from time to time alternated with it, and to them undoubtedly must often be ascribed some measure of the good result obtained. On the other hand, I can affirm that for certain conditions, such as may be learned from the cases cited, I have found no remedy to equal it, and I believe that in these and in many other conditions the prolonged use of repeated doses of castor oil will be found to serve a valuable purpose in our efforts to combat disease.

MEDICAL PROGRESS.

MEDICINE.

Alterations in the Lymphatic Vessels in the Course of Syphilis.—1. The lymphatic system undergoes an almost constant alteration in the course of syphilis. But while the ganglia are quite often modified, the lymph-vessels, on the contrary, are very rarely so.

2. The lymphopathies exist under many conditions, and may be divided into six clinical forms. *a.* In the first place, there is a simple inflammatory lymphangitis consecutive to a specific ulceration, however excited. *b.* A lymphopathy may complicate the infecting chancre, and then it bears the same relation to the lymphatic vessels as the adenopathy consecutive to the syphilitic chancre bears to the lymphatic ganglia. *c.* There is observed a secondary disseminated lymphopathy, which evolves under the sole influence of the diathesis, without being under the dependence of a local manifestation. *d.* In the tertiary stage, certain lymphatics, principally those of the dorsum of the penis, may become sclerosed, and give rise to a special lymphopathy. *e.* A cutaneous manifestation of late hereditary syphilis may be complicated with lymphangitis having a special aspect. *f.* Finally, in acquired, as in hereditary syphilis, there exist alterations of the visceral lymphatics. These alterations, carefully studied from an anatomico-pathological point of view, occasion no characteristic clinical symptom which enables one to diagnose them.

3. Clinically, the different lymphopathies are particularly characterized by the existence of hard, mobile, indolent, aphlegmatic cords, situated exactly upon the anatomical course of the lymphatic vessels. For this the first and the sixth forms described are an exception. The first is an inflammatory lesion, and the sixth a visceral lymphopathy.

4. The treatment should be specific and constitutional. Mercurial frictions are injurious in these cases, because they may irritate the skin or inflame or alter the lymphatic vessels which are predisposed to phlegmasies by the fact of the syphilitic diathesis. In grave cases, subcutaneous injections may be employed which, despite their inconveniences, constitute a most energetic therapeutical measure.—Dr. Paul Salle, *These de Paris*, 1884; *Journ. Cutan. and Vener. Diseases*, July, 1885.

SURGERY.

Injections of Iodoform-Ether in Cold Abscess.—Prof. A. Verneuil had already called attention to this mode of treatment, at one of the meetings of the French Congress of Surgery, and in consequence of a demand on the part of many of his colleagues, gives the details of his mode of procedure in the *Revue de Chirurgie*, for May 10, 1885.

He commenced this mode of treatment in 1883, on the grounds that the contained fluid in cold abscess is of secondary importance to the walls of the abscess itself, and that it is to the latter that therapeutic measures should be directed. The walls comprise two layers, the external fibroid, neoplastic, of irritative origin, but without specificity, and of a nature that, when the irritation has once passed off, is likely to disappear spontaneously like the sac of an aneurism after the absorption of the clots, the internal, on the contrary, contains the cause of the trouble, the tuberculous germ, the parasite. Iodoform seems to be the agent most suitable as a parasiticide in its efficaciousness for this purpose, but being toxic in certain cases and under certain conditions, it was necessary to ascertain how and in what quantity it had best be used First it was necessary to find a vehicle capable of carrying the iodoform to all parts of the abscess, which is so variable in its extent, and so irregular in its walls Ether seems to be the most adapted to this means, on account of its extreme diffusibility, it has other advantages in dissolving iodoform readily, is inexpensive, and has no toxic properties There are certain points, however, to be insisted upon in its management as follows

1 *Evacuation of the pus and consecutive injection* Verneuil uses the aspirators of Dieulafoy or Potain, because they allow an evacuation of almost all the fluid without exercising the slightest pressure upon the sac This, so to speak, spontaneous evacuation is particularly valuable in cases of abscess by congestion that is more or less high up in the abdominal or thoracic cavities, and consequently inaccessible at these points to the action of the hand He uses trocar No 3, prefering it to the needle of the same size, the point of which might wound the walls of the abscess, because an instrument that is too delicate is easily obstructed by the purulent or caseous grumous matter Rather than lacerate the vessels he allows a little pus to remain, and stops its evacuation as soon as the fluid becomes tinged with blood For the same reason he abstains from all washings out, and proceeds immediately to the injections of the iodoform-ether

2 *Quantity and concentration of the liquid injected* At first, in a very large sac, he used more than 100 grammes of ether holding in solution 20 grammes of iodoform, this remained in the sac and gave some serious symptoms of intoxication Since then he has used a solution of 5 per cent, and injected only 100 grammes at most, but usually from 50 to 60 grammes are sufficient In this way the quantity of iodoform liable to absorption is never more than four or five grammes It is prudent to do this, since the chances for absorption can never be calculated in advance, as they depend upon such varying circumstances, as the capacity of the sac, its thickness, permeability, vascularity of its walls, greater or less distension by the injected liquid, etc The age of the subject, also is of a certain importance As soon as the injection passes into the cavity, it increases to a size greater than before the pus was evacuated Percussion shows this to be due to the sudden vaporization of the ether The sonority persists for several days, sometimes a week, and gradually, as the ether vapor disappears, becomes dull No matter what the amount of ether injected, he has at no time noticed any sign of excitation, of anæsthesia or of narcotism The long sojourn of the iodoform in the purulent sac is well determined In one case he found appreciable traces at the end of five months From two to four injections are generally sufficient After the first operation the patient, in a few days, can be allowed to go about his ordinary occupations For small cavities, of the size, for example, of a large orange, a strong solution may be used of 20 grammes of ether containing 4 grammes of iodoform, which will produce energetic action and prompt relief, the larger cavities require a weaker solution, the action is prolonged and relief slower

Dr Chantemesse, at the request of Prof Verneuil, has made some interesting experiments bearing upon this subject in the laboratory of Prof Cornil He took some of the pus which was drawn from a cold abscess by the first puncture, and with it inoculated two guinea pigs, they were killed two months later, and presented numerous tuberculous foci The emptied sac had been filled with the iodoform ether injection, and several weeks later a second puncture was made, the liquid in its turn being used to inoculate two new guinea pigs, they remained perfectly well and exempt from all tuberculous infection, as was demonstrated by the autopsy made some time afterwards

An Operation for Fistula in Ano —At the meeting of the New York Obstetrical Society, on January 6, Dr T A Emmet referred to the difficulty experienced at times from leakage after the usual operation of division of the sphincter for fistula in ano, and said that, to avoid this accident, he adopted another procedure recently The internal fistulous opening was about half or three quarters of an inch and a half to the left of the anus He placed the woman in Sim's posture, introduced a rectal speculum, and divided the tissue with the scissors as far up as possible without involving the sphincter Then Dr Bache Emmet, who was assisting him, put one finger into the rectum, bringing the rectal surface under the cut, and enabling him to denude the entire tract of the sinus without enlarging the opening into the gut While the parts were held in this position he inserted the first suture into the integument, close to the sphincter, outside, passing it through the lower edge of the internal opening of the fistula, and he so continued to pass interrupted sutures of catgut, approximating the mucous surfaces within the rectum more closely He thought the operation might have been more easily performed had he inserted sutures in the walls of the fistula outwardly before using the scissors, as it was, he experienced great difficulty in passing the sutures so deep The result had been perfect Such an operation would prove of great benefit if we could thereby cure the disease and avoid dividing the sphincter muscle —*N Y Med Journal*, June 27, 1885

Faradization in Intestinal Obstruction —M Laborde relates a case in which, the usual expedients having been tried in vain, one electrode of a Gaiffe apparatus was applied to the anus, and the other promenaded over the abdomen the current being varied in intensity, for fifteen minutes As this had no effect, the anal electrode was kept in place, and the other held steady on the hypogastrium After an energetic current had been passed for ten minutes, gurgling was heard, and flatus was passed, followed by about a spoonful of greenish liquid The application was then repeated, an enormous discharge of gas and fæces took place, and the patient was relieved at once —*N Y Med Journ* , June 27, 1885

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

The Editor of this Journal would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

Subscription Price, Including Postage.

Per Annum in Advance	$5 00
Single Copies	10 cents

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned. When neither is accessible remittances may be made at the risk of the publishers by forwarding in registered letters.

Address
Journal of the American Medical Association,
No. 65 Randolph Street,
Chicago, Illinois.

SATURDAY, JULY 25, 1885.

ORGANIZATION OF THE INTERNATIONAL CONGRESS OF 1887. THE TWO RADICAL MISTAKES AND WHO MADE THEM.

It is always unpleasant to differ from those whom we have regarded with respect if not actual deference, and yet there are times when stern duty demands that simple facts should be stated in plain language, whether they prove palatable or unpalatable to friends or foes. The arrogance with which a few members of the profession in the cities of Philadelphia, Baltimore, Washington, and Boston, assume to constitute not only *the* profession of those cities, but also *the* representatives of all the respectability and science of the profession in the United States—the bitterness with which they assail the American Medical Association—and the odium they attempt to cast upon the representatives from each State, chosen by the Association to constitute a part of the Committee on organization of the Congress, through their chosen organs, the *Medical News* of Philadelphia, the *Medical Record*, of New York, and the *New York Medical Journal*, of the same city, make it necessary to analyze this seemingly heterogeneous mixture of arrogance, bitterness, and misrepresentation, to lay bare its true animus, that if any important mistakes have been made the medical world may see clearly what the mistakes were and *who made them*.

What then are the essential facts underlying all this tempest of words? At the Annual Meeting of the American Medical Association, in May, 1884, the President, Dr. Austin Flint, in his annual Address, called attention to the desirability of having the Triennial International Medical Congress hold its meeting for 1887 in this country, and after stating the fact that the Association was the only organized representative of the whole profession in the United States, distinctly recommended the appointment of a Committee to report upon the propriety of extending an invitation at the meeting of the Congress which was to assemble in a few months in Copenhagen.

This part of the President's Address was referred to a Special Committee, which at a subsequent part of the same meeting of the Association, reported a series of resolutions endorsing the recommendation of the President and providing for the appointment of a Committee of seven (which was subsequently made eight) to proceed to the meeting in Copenhagen and present the invitation in behalf of the profession of the United States, and if the invitation was accepted, the same Committee was authorized to continue its existence, add to its numbers and make all necessary arrangements for the meeting and organization of the Congress. Here are clearly presented three important facts, viz.: (*a*) that the American Medical Association is the only organized representative of all departments of the profession in the United States; (*b*) that the Committee of invitation with all its powers and duties was simply the instrument or agent appointed by the Association to perform certain acts or duties; and (*c*) having appointed such agent and invested it with certain important powers, the Asssociation was, by the fundamental principles of parliamentary law as well as by the dictates of common sense, itself responsible to the medical world, both for the character of the agent or Committee, and the manner in which it should discharge its duties. The truth of these statements is too obvious to require comment or illustration. The Committee was appointed, attended the Congress in Copenhagen, presented the invitation in accordance with the instructions of the Association, and it was accepted. Thus far all was right. Soon after the return of the members of the Committee of eight to this country they began their work of organization, and one of their first duties was to enlarge their number by selecting a suitable number of representative members of the profession to give their Committee, as enlarged, a more nationally representative character.

It was here, directly upon the threshold of the most important part of their work that a majority of the original Committee practically ignored all allegiance to the National Association, and assuming an entirely independent attitude, at once placed in the front of their ranks not only one who was well known to have repudiated the National Code of Ethics and to occupy a position directly hostile to the National Association and the State Associations throughout the country, but urged the addition of another still more obnoxious, until their Chairman, Dr Austin Flint, whose well earned reputation had contributed more to give character to the Committee than that of any other two members, felt compelled to tender his resignation as a member of the Committee, and was only induced to recall it, by an agreement that the objectionable additions should not be further urged Having enlarged their Committee by the addition of fifteen or twenty prominent members of the profession, chiefly from the three cities of Philadelphia, New York, and Washington, with two from Boston, two from Chicago, one from Cincinnati, one from St Louis, and perhaps one or two from other cities, the next step was a meeting of the Committee, as enlarged, in the City of Washington, November 29, 1884, at which there were present fifteen of the twenty-five members then constituting the Committee The deliberations were confined to a single day A Sub-Committee of three members of the original eight had prepared a series of rules, by which a large number of Sections were provided, the working of each and of the general sessions of the Congress, were to be regulated, and by which the Committee itself was to be officered and governed Under the guidance of a temporary Chairman and Secretary the report of this Sub Committee was taken under consideration, and so far as related to the simple rules regulating the practical working of the Congress, they were adopted with unanimity

But the rule providing for the American membership of the Congress proposed no representatives or delegates from either national or State medical organizations, they were to consist simply of such members of the profession as the Committee on Organization might graciously invite And it was not until after a pretty free discussion that a substitute offered by one of the members of the Committee, from Chicago, was adopted, making the American membership of the Congress consist of delegates regularly elected by the American Medical Association, the several State and local societies, and the several national organizations of specialists This, however, was the only important point gained in the direction of nationalizing, in opposition to centralizing, the work of the Committee, although a few members present continued to exert all their influence in that direction throughout the session, and subsequently by correspondence with the executive part of the General Committee The rule adopted regarding permanent officers of the *Committee provided* that all the general officers of the Committee should also be nominated (and of course elected) for the same official positions in the preliminary organization of the Congress, and that the executive Committee of the Committee on Organization should also be the Executive Committee of the Congress Under these rules, when the permanent officers of the Committee had been elected, and the chairmen of the several Sections named, it was found that eight of the twenty-five members of the Committee had been placed in position for general officers of the Congress, four more for members of the Executive Committee, and still four others for chairmen of Sections, making sixteen of their own number appointed to as many of the chief official positions in the Congress If a parallel to this can be found in the proceedings of any previous committee on the organization of a Medical Congress, we would like to know when it occurred and to what nation the committee belonged A few members of the Committee earnestly protested against this wholesale self-appointment to office, and urged a wider distribution of the more important selections But the uniform answer was that no one must be selected who was not well known both in Europe and America, and unfortunately, in their estimation, no one in the whole profession of the United States possessed these essential qualifications but themselves and a score or two of their personal friends in a few of the chief cities

When the General Committee adjourned its meeting in Washington, the filling up of the details and the selections for minor positions in the Councils of the Sections was committed to an Executive Committee with power to call another meeting of the General Committee to revise and complete its work at such time as it might deem proper, the general wish being expressed that another meeting might not be found necessary until the time for the National Association to meet in New Orleans, in the *following* May It is sufficient to say that the Executive Committee prosecuted its work in the same spirit and under the same narrow impulses that had characterized the beginning of the Committee work, and just a few weeks before the meeting of the Association in New Orleans it assumed the responsibility of publishing the results, not only in contempt of the Association, but without calling a second meeting of the General Committee, and thereby cutting off all opportunity to have their work reviewed even by those who had been added to the Original Committee, and thereby made in a measure jointly responsible for the results

We have given the foregoing detail of facts regarding the doings of the Committee on the Organization of the Congress as originally constituted, at the risk of being tedious, that all candid men, both in this country and in Europe, might see who was responsible for "injecting the Code controversy into the organization," by wantonly and unnecessarily thrusting men who had repudiated the Code, and openly condemned the National Organization, into the front rank of official positions at the very beginning of the work of organization. If the logic of events ever proved anything in human history, the events we have briefly detailed, taken in connection with the pompous attitude at present assumed by a handful of otherwise respectable members of the profession, in the cities of Philadelphia, Washington, Baltimore, and Boston, prove two things with the utmost clearness. The first is, that the majority of the Committee on Organization as at first constituted, whether consciously to themselves or not, practically made a bold attempt to use the national character and prestige of the American Medical Association as a "decoy duck" to obtain, first, their own appointment as a committee, and second, from the International Medical Congress in Copenhagen an acceptance of the invitation to hold its next meeting in this country, and having accomplished these, to coolly turn the Association into a "foot-ball" and contemptuously kick it out of their way, that they might organize the American part of the proposed Congress in the interests of themselves and a score or two of personal friends in three or four cities, entirely regardless of the interests or wishes of the general profession of the United States, in whose name the invitation had been given. Unfortunately for the final success of their scheme, the "foot ball" proved too heavy, and their kicks only resulted in breaking their own toes.

Smarting under the injury done to their pedal extremities, they first vociferously denounce the Association and all connected with it. And yet, no sooner had the Association added a sufficient number of new men to the original part of the Committee to dress their wounds, drop out the specially obnoxious ones, and make their places available for a wider distribution of the official positions, and kindly offer to continue all the rest as before, then they, by concerted action in three or four cities, throw themselves back on their supposed dignity, and in the exact spirit of the modern labor union strikers, refuse to accept any positions themselves or let any one else, if they can prevent them, until the American Medical Association shall with all due humility take itself and the new members out of their way, and allow them to join their old *Code*-repudiating comrades and again fix all things up in their own way. Such is the exact position of a handful of very respectable members of our profession in four cities, who committed the two radical mistakes of supposing they could use the American Medical Association alternately as a *decoy duck* or *foot ball* at their pleasure; and that in themselves and a few friends were concentrated all the science and representative capacity of the medical profession of the United States. In view of their present position they might with great propriety adopt the prayer of Scotland's favorite bard,

"O wad some power the giftie gie us
To see oursel's as others see us!
It wad frae monie a blunder free us,
And foolish notion."

That we do not err in representing them as a handful or limited number, is proved by the letter of our special correspondent in Philadelphia, on a subsequent page of this number of the JOURNAL. The writer of that letter is one of the most eminent and widely known teachers in the profession of Philadelphia, and his letter will be read with much interest.

Meanwhile, the real friends of the International Medical Congress may rest assured that the American Medical Association, through its present able and judicious Committee of Arrangements, will fulfill all the obligations it incurred, in extending the invitation at Copenhagen, in the most liberal and enlightened manner.

CHOLERA INOCULATION.

The idea that a disease, one attack of which is well known not to destroy susceptibility to future attacks, can be prevented by inoculation with any possible preparation of its efficient or specific cause, is so contrary to the simplest rules of induction, or, in other words, to "common sense," that one feels a degree of surprise that any intelligent medical man should waste his time in experimenting on the subject. But it appears that nothing is so extravagant or absurd, especially if connected with the modern germ theories of disease, but that it may find advocates willing to experiment wherever they can find deluded subjects willing to be used for that purpose. That one attack of genuine epidemic cholera does not afford the individual immunity from subsequent attacks of the same disease is well known to all who have had practical experience with the disease. A correspondent of the *British Medical Journal*, of June 27, writing from Valencia, in Spain, says: "I know people at home and abroad, and have patients here, who have had it twice and thrice and some have died of it after one attack." Yet the same writer tells us that a Dr. Ferran claims to have taken the genuine Koch bacilli from the intestines of a patient who died of cholera in Marseilles last year, and by cultivation has discovered the "basic cell of the comma-bacillus"

These basic cells he has called "peronospora Ferrani," and it is by inoculation with these that he claims to protect the people against a liability to be attacked with the cholera The same correspondent states that in the city of Alcira alone, some 6,000 or 7 000 persons were inoculated and re-inoculated by Dr Ferran and his assistants, who claim that it produces no severe or dangerous symptoms, and secures to the re inoculated entire immunity from attacks of cholera But the correspondent tells us that cases of "phlegmonous erysipelas, septicæmia, and death," following the re inoculations, have already come under his own observation And so far as prevention of cholera attacks is concerned, subsequent observations have shown that wherever the disease has prevailed, it has attacked the inoculated as readily and fatally as the uninoculated It is stated in the secular papers of July 18, that "every one of forty seven nuns who were inoculated by Dr Ferran has since died of cholera" It has been stated several times that the Spanish government had forbidden the further operations of Dr Ferran in that country but it appears that he still finds deluded victims willing to submit to his futile and somewhat dangerous experiments

DISEASE FROM POISONOUS DRIED BEEF

A number of cases of an affection resembling, according to newspaper accounts, a severe form of cholera morbus, occurred in Momence, Illinois, on July 17, which was evidently due to the eating of decomposed dried beef The whole number of persons affected was about forty There scarcely seems a doubt that poisonous dried beef was the cause of the sickness, as it has been shown that every person affected had partaken of the beef, and so far as can be ascertained no one was taken sick who had not eaten of it

The dried beef was shipped to Momence from one house in Chicago, but the dealer declares that the meat was good when shipped by him In view of the fact that the beef was shipped on Tuesday and put on sale at Momence on Wednesday, the disease appearing on the following Friday, it scarcely seems possible that the statement of the shipper can be correct The dried beef, ninety-seven pounds, was shipped in a box, and after its arrival was unpacked and done up in paper until sold There are statements to the effect that when received at Momence the beef appeared to be fresh and sweet smelling, and the retailer states that he noticed no bad odor from it

The symptoms of those affected, according to newspaper accounts, were great languor and weakness, nausea, gripings, severe diarrhœa and vomiting It seems also that typhoid symptoms developed in a few cases, though there has only been one death Dr Utley, of the State Board of Health, saw a number of the cases in consultation with Dr Keyser, of Momence, and Dr Ellis, of Kankakee Dr Utley's opinion, according to the *Chicago Times*, of June 15, is that the poisoning was surely caused by the beef, and after careful examination it seems impossible that the person putting up the meat did not know it was poisonous As no autopsy of the person who died was allowed, the examination was necessarily incomplete It is stated that Dr Keyser, on microscopical examination with 600 diameters, found numerous "animalculæ"

Dr O N Ellis, of Kankakee, says From partial examination under the microscope of the impure beef, I find the marked characteristic to be a very unpleasant odor, made more apparent by being macerated for a short time in pure water at ordinary temperature I find a total breaking down of striated muscular fibres, the presence of which in healthy muscle would be the first distinguishing characteristic when examined microscopically This destruction of muscular tissue also means the entire oblitaration of the myolemma or fibrous covering of the muscle with blood corpuscles and fatty tissues, which leads me to believe that this beef was taken from an animal diseased, or, more probably, one partially decomposed, before submitted to the so called process of curing, presenting a substance that is regarded as poisonous in the extreme when eaten, and hence dangerous to human life

So far as can be ascertained, the most complete examination of the meat yet made is that of Professor G A Mariner, of Chicago His microscopic examination has disclosed the presence of numerous bacteria, including micrococci, bacilli (including bacillus subtilis and bacillus anthracis), bacterium termo, vibrio serpens, spirochætecæ obermeieri, and spirillum volutans Examination of the muscular tissue showed that it was infiltrated with micrococci and partially or wholly broken down There was no odor in the specimens examined by Prof Mariner

Health Officer De Wolf, of Chicago, is inclined to attribute the sickness to the development of ptomaines in the beef, and from the meagre account which we have been able to obtain we are inclined to agree with him In fact, we see no reason for holding to any other theory But aside from this, it must be concluded that the whole affair is the outcome of criminal negligence on the part of some person or persons, and they should be punished to the extent of the law

SOCIETY PROCEEDINGS

CHICAGO MEDICAL SOCIETY

Stated Meeting, July 6, 1885

1ST VICE-PRESIDENT, C W PURDY, M D,
-IN THE CHAIR

DR ROBERT TILLEY exhibited to the Society

MICROSCOPICAL SPECIMENS OF THE FUNGUS, ASPERGILLUS GLAUCUS TAKEN FROM THE HUMAN EAR, AN OSTEOMA DEVELOPED FROM THE CRUSTA PETROSA OF A CANINE TOOTH, AND FILAMENTS, OR MYCELIA, FROM THE BODY OF A TONSIL

Dr TILLEY said In describing to you the three specimens which are exhibited under the microscrope, I will refer in the first place to the fungus—aspergillus glaucus—taken from the human ear I have had this in my possession for about three years and have shown it to several of my acquaintances, but did not deem it of sufficient interest to exhibit it before It is, however, an object which many have not seen before, although it is mentioned in every text book on the subject I have no intention whatever of entering into the question of the aspergilli in general relative to their influence when found in the ear But I must say that my experience relative to the question leads me to think that its influence as a source of pain in the external ear is greatly exaggerated in the books This specimen was taken from the posterior wall of the meatus of a little girl who had for some time previously been afflicted with otorrhœa The otorrhœa had however ceased and the fungi were recognized in lusty growth immediately on looking into the ear There was, however, no pain complained of, the patient was brought rather for inspection than for the expectation of relief You will observe that the fungi are growing on what by simple inspection might be called dried but otherwise normal wax You will notice that the fungus consists of one straight long stem surmounted by a round ball, very much like the top of an onion which has run to seed It is commonly said, I think rather on theory than on observation, that they are caused by sleeping in low, damp apartments The child from whom this was taken belonged to people in good circumstances and was well taken care of, and was not living in damp quarters

The next specimen, to which I now refer, is the osteoma developed from the cementum or crusta petrosa of a canine tooth I am very sorry that I cannot give you anything of the clinical history, because I believe it would be interesting if known In consequence of this, it is perhaps necessary that I should give a word of explanation as to how it came into my hands A friend was speaking to me of some one who had been subjected to the operation of drilling through the fangs of six teeth on account of what was called "ossification of the nerve" In speaking to one of my acquaintances among the dentists about such a condition, I was presented with a tooth a section of which I exhibit to you You will see, both macroscopically and microscopically, that the line of demarcation is well defined You will further see that the general appearance of the tumor is that of bone, and that it differs greatly from the general appearance of the tooth proper It is interesting to observe, moreover, that the canal, through which the nerve and vessels enter, is greatly diminished in its course through the tumor, consequently great pressure must have been exerted on the nerve Before making the section, I had supposed that the canal was completely obliterated, so small is its opening at the end of the tumor On looking at the specimen through the microscope, you will see very clearly that while the line of demarcation between the dentine and the proliferation of the crusta petrosa is well marked, and the lacunæ and canaliculi of the bony structure of the tumor well demonstrated, there is also a number of contorted tubules in the bony tumor which resemble, somewhat, the dental tubules Haversian canals are of course not present, they never are in such growths

Although I have no clinical history to present, I may add that the usual clinical history is one of severe pain, which nothing but extraction seems capable of relieving The last specimen is one which I obtained from one of those little pockets which are often found in the tonsils They seem to come and go, sometimes without giving any more inconvenience than a little discomfort They are frequently associated with fœtid breath, and in some cases the masses themselves are very offensive (in odor) In the present case, however, this was not so, there was no fœtor There was, however, an unpleasant sensation amounting to a positive discomfort running down the neck externally, in the direction of the sterno cleido mastoid (muscle) On pressure around the mass, the little mass popped out, suddenly, so that it came near going down the patient's throat In examining it, under the microscope, it proved to be one base of filaments, very fine and containing spores in the body of the filaments, and associated with them fat crystals I succeeded in staining them with methyl violet, but only after first extracting the fat with ether

I have no theory to present, gentlemen, I simply exhibit to you what has been interesting to me After the removal of the small mass I did not think any treatment was necessary, but as there was a little bridge of tissue more or less dividing the cavity into two sections I divided the bridge with the electro-cautery

DR J A ROPISON read a paper on

THE TREATMENT OF ACUTE CORYZA

He said the literature on the subject of the treatment of acute coryza is scanty and of a stereotyped nature The profession seems to have arrived at two conclusions, first, that it is not a disease of sufficient severity and importance to command special attention, second, that no plan of abortive or curative treatment has been sufficiently successful to cause them to investigate the subject farther However, in view of the fact that repeated attacks of acute coryza undoubtedly have a causal relation to pathological changes in the nares which it is difficult to remove, and that we are so frequently consulted by public speakers and singers who beseech us to abort or rapidly cure such acute attacks, it certainly deserves more than a passing notice.

The time honored plan of aborting an attack of acute coryza by the administration of a full dose of opium, an active purge and a potent diaphoretic, has proved more disagreeable than efficacious. The plan, advocated by Dr. Ferrier, of blowing into the anterior nares a powder composed of morphia, bismuth and acacia, has been quite satisfactory in a few instances, but it is not free from the objection that, when successful, it often produces an unpleasant nausea. Its success is undoubtedly due to the sedative and astringent effect upon the inflamed mucous membrane.

What are the pathological conditions in the first stage of acute coryza? Briefly, there is dilatation of the capillary vessels, the arterioles being dilated and the venules engorged, inducing tumefaction of the mucous membrane. This is accompanied by dryness and pain. Secretion is abolished. In reflecting upon these circumstances the thought naturally arises, whether, if we can employ such measures or drugs as will antagonize these abnormal states, we will succeed in aborting disease. We have recently had added to our armamentarium a drug which more completely antagonizes in its physiological actions these pathological conditions than any other. It is the hydrochlorate of cocaine.

Its physiological actions have been demonstrated to be concisely as follows: when applied to a mucous membrane it is a potent although transient anæsthetic, a vaso motor constrictor causing contraction of the arterioles and depletion of the venules, thus rapidly emptying congested tissues of a surplus of blood. This drug is also an astringent and has the property of lessening the secretion of muciparous glands. On studying the relation between the state of the nasal mucous membrane in the first stage of acute inflammation and after an application of cocaine, the theory was formulated that cocaine should prove useful in aborting acute coryza, and it was determined to try it on the first opportunity.

The details of the first experiment are as follows: Miss S———, a soprano singer in one of our city churches, applied to me on the morning of February 22, and desired immediate relief from a "cold in the head." She complained that the previous night she had been exposed to a draft and awoke that morning with the cold, as evidenced by the fact that she could not breathe through the nose, and that her nose felt dry and painful, and she had lost the sense of smell. Inasmuch as she had to sing that night at a special service, she must have immediate relief. Upon examination I found all the conditions incident to the incipiency of an acute coryza. Her temperature was 102° F., with some acceleration of the pulse.

Febrifuges and a mild diaphoretic were prescribed. A local application of a four per cent solution of hydrochlorate of cocaine was applied, as thoroughly as possible, to the congested mucous membrane, and the parts were sprayed, also, for some time with a warm alkaline spray, hoping thereby to reduce the hyperæmia. After having made another application of the cocaine, the patient was instructed to return home and follow the same line of treatment and to return the following day. She did not return until three days later, when she reported, to my surprise and gratification, that she had been able to sing as desired, and that no symptoms of the disease had returned.

The success which attended this new departure, induced me to try it in other cases of acute coryza which were seen early, and it has almost always been successful. Of course, the number of cases which we see in their forming stage are few, on account of the fact that the patients do not seek medical advice for this affection until the disease is well advanced.

In the use of cocaine for the purpose of aborting an acute coryza there are some objections, it has to be applied often in order to maintain its action on the inflamed mucous membrane, and it is an expensive drug. I have found that the use of a warm alkaline spray serves to prolong the sedative action of the cocaine. Of course dependence is not to be placed on local measures alone, but in addition proper attention is to be given to constitutional and hygenic treatment.

Dr. Tilley said he had used the hydrochlorate of cocaine in two or three cases of acute coryza with much satisfaction. According to one patient an attack had ended with a single application. While he did not look upon cocaine as a sure cure for acute coryza, he thought it almost always did good. He referred to a serious accident which occurred to one of his patients during the use of cocaine. The patient was a boy aged twelve years, in whose nose a little cocaine had been used. After the first application he suffered a little nausea, which was not regarded as serious, after the second application the nausea was worse, but it was not until a third application had been made that the symptoms became alarming. These symptoms were difficulty of breathing, syncope, irregular action of the heart, cold perspiration and loss of sensation in the extremities. Notwithstanding these symptoms were alarming, the boy recovered quite rapidly. He had noticed reports of cases in the journals where the same symptoms had appeared.

Dr. Weiler said that he had had a good deal of experience in the use of coca, especially in the form of the fluid extract. He had taken large doses, in his own person he had used two pounds in a short time. Formerly he had considered it as harmless as tea, but latterly he had arrived at the conclusion that it is a powerful narcotic. The strange phenomena which follow use of cocaine in some cases, he believes to be due to the narcotic action of the drug, and that they would not appear if the drug was not given in large doses. He believed some patients to be peculiarly susceptible to the action of coca or cocaine, similar to the idiosyncrasies of patients in the use of belladonna, opium, and alcohol. In the case mentioned, he believed the symptoms to have been the result of an over dose of cocaine. In his experience, he had found a two per cent solution of cocaine strong enough, and urged the tentative use of the drug in the same manner as in the use of morphia

Dr Webster did not wish to be considered sceptical, but he had some doubt as to the alarming symptoms in the case mentioned having been due to the drug Is it not possible they were the result of reflex processes in over-sensitive patients? He had a patient recently who vomited after holding a fever thermometer under her tongue

Dr Paoli believed that the old treatment of acute coryza by giving the patient a hot bath, muriate of ammonia internally, and inhalations of camphor in hot water, or the oil of eucalpytus, combined with borax, to be the best, although he would acknowledge that cocaine would often relieve severe attacks in a short time

Dr S J Jones asked the author of the paper if he had used cocaine with a steam atomizer in recent pharyngitis, tonsilitis and laryngitis, also, if the applications of cocaine to different patients were from the same solutions and at brief intervals, so as to be able to state how a reliable solution acted on different patients

Dr Robison, in closing the discussion, said he did not advocate the plan of treatment as infallible or free from objections, nor did he neglect to use other means of cure if he thought they were advisable As to the effect of cocaine on certain patients, he had a similar experience to Dr Tilley in the case of a woman who had twice been operated on without cocaine for nasal polyps No unfavorable symptoms occurred during these operations At the third and fourth operations, cocaine was used and the patient was troubled with nausea, vomiting, palpitation of the heart and syncope As no cocaine had been used in the first two operations, these symptoms in the third and fourth operations seemed to be, undoubtedly, due to an idiosyncrasy of the patient He had not used cocaine with the steam atomizer, but he thought it feasible, if the drug were not so expensive He prepares fresh solutions for each patient so as to preclude all possibility of failure of action by reason of deterioration of the solution by age He had found the same package of cocaine to vary in its local and constitutional effect on different patients, affecting some more rapidly and profoundly than others

STATE MEDICINE

MICHIGAN STATE BOARD OF HEALTH

At the quarterly meeting of the State Board of Health of Michigan, held July 14, 1885, at its office in Lansing, the following members were present — Drs Avery, Lyster, Hazlewood, Vaughan, Tyler, and Baker

SECRETARY'S REPORT

The Secretary read a report of work during the quarter ending July 13, 1885, the leading features of which are as follows The weekly and monthly bulletins of Health in Michigan, and the meteorology and mortality reports had been prepared from the numerous reports received, and sent out as heretofore The footings and computations on meteorological registers and on the sickness reports and tables have been carried on, and the meteorological computations for the year 1884 nearly completed ready for tabulation The office had made large distributions of documents relative to the work of health officers, and to the restriction of contagious diseases, to newly appointed health officers and to others, especially in localities where such diseases have occurred

The proceedings of the Sanitary Convention at Lansing have been edited, sent to the printer, and the proof of most of it read Articles on meteorology and sickness in Michigan in 1883 have been completed from data previously collected Data collected by the office relative to scarlet fever in Michigan in 1884 have been compiled, and also that relative to diphtheria A map has been prepared showing the distribution of diphtheria in Michigan in 1884 Smallpox has been present in Michigan during the quarter, at Bellevue, Eaton county, Alba, Antrim county, Battle Creek, Girard township, Branch county, and South Haven The outbreak at South Haven was confined to those first exposed, and has been stamped out, after nine cases occurred, with one death The infection at South Haven was from a German emigrant who sailed from Bremen, April 12, on the ship Donau, North German Lloyd line The emigrant was broken out with smallpox when he reached South Haven, April 27, and might have been quarantined *en route*, and the outbreak thus confined to one case All infected persons were at once vaccinated by the health officer, but the virus was not good, and thus precious time was lost This outbreak is but another added to the many constantly recurring outbreaks of communicable disease in Michigan and the Northwest, to which a faithfully executed emigrant inspection service, carried on by the National Government, would put an end, or greatly lessen At the present time, so far as known, there is not a case of smallpox in Michigan Typhus fever was reported at Grand Rapids, Mich , during the week ending July 4

Cholera is spreading with great violence in Mediterranean Spain, hundreds dying daily It was reported present in Marseilles over a month ago, and July 10, at Toulon A strange and fatal disease, believed to be cholera, was also reported from Portugal Asiatic cholera will probable reach this country this year or next year, and the State Board of Health has prepared to meet the emergency by many lines of work, as best it could About 12,000 copies of the document on the best

METHOD FOR THE PREVENTION AND RESTRICTION OF CHOLERA

were distributed to the people last year The recent distribution of documents relative to typhoid fever, and especially the correspondence with health officers throughout many parts of the State on the best method of restricting this disease has done something in the way of drill in the two important methods applicable in case of cholera,—the disinfection of all bowel discharges and the protection of the purity of the water supply. Much, however, remains to be done in many localities in the way of abating nuisances, and in protecting wells from sources of contamination.

The Legislature has passed an act granting the State Board of Health power to establish a system of

INSPECTION OF EMIGRANTS AND TRAVELERS,

and the disinfection of baggage, etc., liable to be infected with cholera or other dangerous communicable disease, but the act was not given immediate effect and so does not take effect until September 18, 1885. The contingent appropriation to enable the Board to carry on the inspection, etc., provided for in the act, can be used on or after Sept. 18, in case the Governor thinks its use is necessary.

Reports relative to examinations during this quarter, by this Board, of plans for buildings, have been sent to the Boards governing the Michigan Asylum for the Insane, at Kalamazoo, the Northern Asylum for the Insane, at Traverse City, and the State Reform School, at Lansing. Over 650 pages of the letter-book have been used in copying the most important parts of the correspondence, and other branches of the office work have been large during the quarter, and the Legislature made additional demands upon the time of the office.

A very successful Sanitary Convention was held during the quarter at Ypsilanti.

The Board spent much time in examining plans, as required by law, of a proposed new

DOUBLE COTTAGE AT THE REFORM SCHOOL AT LANSING,

a building designed to accommodate 100 pupils. The plans were submitted by the architect, Mr. William Appleyard, of Lansing. The Board approved the plans for ventilating and warming the second and third floors. With reference to the first floor the Board recommended, in order to avoid the settling of dust in the registers, that iron hoods be placed over the fresh-air inlets which enter the school rooms through the floor, and that two additional foul-air outlets, each of a size equal to that of the present outlet, be provided for the two school-rooms, one in the west wall of the west room, and the other in the east wall of the east room, and that these shafts be heated by steam pipes. Each of these two school rooms is 30x40 feet, 18 feet high, designed to accommodate 50 pupils. Fresh air is brought into each room by two shafts having an area of 512 square inches. The foul-air shaft for each room is only one-half the size of the inlet pipes, the area being 256 square inches. The recommendation by the Board of Health is that the outlets equal the inlets in area. The method of heating and of taking fresh air into the building was approved, and also of the making of the basement floor of cement troweled smooth.

The SECRETARY presented a printed statement in regard to the charges made by a minority of the

LEGISLATIVE COMMITTEE ON INVESTIGATION,

and asked that a committee be appointed to fully investigate the conduct of the office, and the several laws governing the action of this Board. Drs. Hazlewood, Vaughan, and Tyler, were made such a committee.

The SECRETARY read a *resume* of the work of other State Boards of Health and of city boards of health, also a report in regard to recent legislation in Michigan in regard to

SUBJECTS RELATING TO PUPLIC HEALTH.

The act passed by the Legislature appropriating $10,000 as an epidemic contingent fund was read by the Secretary, and the Board appointed Drs. Baker and Lyster a committee to frame rules under that law and submit them to the committee, so that they can be in readiness in case of threatened occurrence of cholera, smallpox, etc.

The Board authorized the Secretary, should cholera appear in Michigan, immediately to proceed to the place, or send a competent person to confer with and aid the local board in

RESTRICTING THE SPREAD OF CHOLERA,

and it was informally agreed that if cholera appeared in the United States, the President of the Board should at once call a meeting. The revision of the document on restriction of cholera issued by the Board in 1884, and the printing of 20,000 copies for distribution, were ordered.

The Board directed that the names and addresses of Health Officers in Michigan be printed in pamphlet form.

The subject of

TYPHOID FEVER

was discussed, and the Secretary was instructed to issue a circular designed to collect information from health officers in localities where typhoid fever occurs, and a committee was appointed to prepare and have printed a document giving methods of preventing and restricting typhoid fever, the document to be distributed in localities where it occurs.

The Board considered the subject of the

CARRYING OF INFECTED ARTICLES AND BODIES DEAD OF CONTAGIOUS DISEASES,

and circulars relating to that subject were ordered printed and sent to health officers and to railroad companies.

The proceedings of the Ypsilanti Sanitary Convention were ordered printed in pamphlet form. Invitations from three places in Michigan to hold sanitary conventions were considered.

DOMESTIC CORRESPONDENCE

THE PROFESSION IN PHILADELPHIA AND THE INTERNATIONAL CONGRESS

Dear Sir.—The JOURNAL of July 11 contains a letter from your Philadelphia correspondent, in which he states that "there is no dissent to the determination in this city, that what has taken place at New Orleans and at Chicago, to the damage of the Congress, shall not be sanctioned even in appearance, or permitted to stand, as the work of Philadelphia at all, notwithstanding the fact, that a Philadelphian is charged with having had a great deal to do with it "

Your correspondent is very much mistaken There is dissent, and very great dissent, with the action of the twenty-eight or twenty-nine medical gentlemen A prominent medical man told me to day that he had refused to sign the resolutions of the twenty-nine I did not sign them I know many medical gentlemen in this city who, with myself, are fully in accord with the action of the American Medical Association at New Orleans We are also earnest in our desire to aid the committee appointed at New Orleans, and to help in every way we can, the arrangements for the International Congress It is not generally thought here that the action at New Orleans has done damage to the Congress, but quite the contrary

One of the twenty nine had six positions given him by the Committee of eight *Hinc illæ lachrymæ!* The Philadelphian referred to is presumably the Secretary of the Committee, appointed at Chicago, Dr J V Shoemaker His manly action at New Orleans has been greatly appreciated here, and he has many warm and true friends Twenty-eight or twenty-nine gentlemen do not represent the whole profession of this city I feel assured that the profession of Philadelphia will support the International Congress and the Code of Ethics of the American Medical Association I am very truly yours, etc P

Philadelphia, July 18, 1885 W H Pancoast

NEW YORK LETTER

(FROM OUR OWN CORRESPONDENT)

A Classical Expression of New York Heat—Tenement House Inspection—The New Hospital for Contagious Diseases—Lectures on Gastronomic Science—The New Liquor Analyst of the State Board of Health—Dr Edson's Report of his Sanitary Division—The Autopsy on Commander Gorringe—A Pathological Laboratory at the New York Polyclinic—Chagres Fever—Buddensiek's Sentence—Mrs Yseult Dudley at a Homœopathic Asylum

The time of midsummer dullness has come, when, as Horace astronomically expresses it,

> Procyon furit,
> Et stella vesani Leonis,
> Sole dies referente siccos

Consequently, everybody who could possibly get away, has gone to Europe, or has sought in the breezy mountains or beside the salt sea a retreat which

> flagrantis atrox hora Caniculæ
> Nescit tangere,

while those left behind in the heats and miseries of the town would fain cry out,

> O, rus, quando ego aspiciam ? quandoq licebit
> Ducere sollicitæ jucunda oblivia vitæ ?

The reports of the extra corps of physicians to make house-to-house visits in the tenement districts during the summer, which were handed in to the Board of Health, July 14th, show that during the first week of their work they visited 2,339 tenement houses, occupied by 10,081 families, and prescribed for 236 persons, chiefly children suffering from diarrhœal troubles These inspectors all agree that the sanitary condition of this class of dwellings at present is greatly superior to that which they found last year

On North Brother Island in the Sound, there is now approaching completion the new hospital for contagious diseases which is to take the place of the buildings now occupied for that purpose on the extreme southerly point of Blackwell's Island, East River A few days ago a party of city officials paid a visit to the new quarters on board the Health Department yacht " Franklin Edson," which is to be a part of the hospital system of the island and has been especially prepared for the transportation of the sick, with separate compartments for smallpox patients and those suffering from other forms of contagious disease The main hospital building is of brick, two stories high, heated and ventilated with most improved modern appliances There is a large ward on each floor, lighted on three sides, and overlooking each ward is a small glass-incaved room to be occupied by the nurses on duty when their actual attendance is not required at the bedsides of the patients This hospital is designed to accommodate seventy-five patients The plans call for ten additional frame buildings, capable of receiving forty patients each, to be used in case of an epidemic, but only three of these will be completed at present Situated at a convenient distance from the main hospital, and also from the proposed sites of the smaller buildings, is the kitchen, which is a double building so arranged that the attendants, food and dishes of other fever patients may not come in contack with those of smallpox patients In addition, there is a handsome and comfortably fitted-up two story brick structure, to be known as the administration building, which is designed for the residence of the physicians, nurses and attendants employed about the hospital All the buildings are to be heated by steam generated in a separate building, which is supplied with Croton water from a thirty thousand gallon tank, and illuminating gas will also be manufactured on the island North Brother Island has an area of about fifteen acres, and on its southern point is situated what mariners know as the North Brother Light-house The island formerly belonged to West-Chester County, and on a part of it there is an old tumble-down frame building which the authorities of that county used as a smallpox hospital

Miss Parloa, one of the leading authorities on gastronomic science in this country, has been giving a course of five lectures on the subject, "How to cook for the sick", before the Training School for Nurses, at Charity Hospital, Blackwell's Island, an innovation in the instruction which might be adopted with advantage in other similar institutions

The State Board of Health has appointed Dr Englehardt official chemist and analyst for beers and distilled liquors The Board recently issued a circular addressed to all distillers or brewers of spirituous, fermented, or malt liquors in the State, notifying them that a law (a copy of which was appended), had been passed by the Legislature, which, in addition to duties covered by that of 1881, concerning which regulations of the Board had already been framed and published, specifically imposes upon the Board of making at least annually an examination of samples of all such liquors manufactured or offered for sale in any brewery or distillery in the State The circular goes on to state that while in no case will violations of the law be condoned or connived at, yet investigations will be conducted in a spirit of fairness and with proper regard for all vested business interests Also that information of the violation of any provisions of the statute will at all times be gladly received at the central office, where such use of it will be made as in the judgment of the Board will best carry out the intent of the law and best conserve the interests of the public

Dr Cyrus Edson has sent to the Metropolitan Health Board a report of the work done by his Sanitary division during the three months ending June 30, from which it appears that 15,890 pounds of beef, 64,596 pounds of pork, 14,170 pounds of poultry, 3,010 pounds of cheese, and 181,538 pounds of fish were seized as being unfit for human food The sale of 195 packages of adulterated tea was prohibited, while 1,622 specimens of milk were examined, and 194 quarts found to be adulterated During the quarter the inspections made by the force under Dr Edson were as follows At markets, 154, commission houses, 1,241, butchers' shops, 713, storehouses, 1,091, packing houses, 18, vessels, 126, stock yards, railroad depots, 209, and fish stands, 2,882

An autopsy was made in the case of Henry H Gorringe, the distinguished naval officer who transferred the obelisk so successfully from Egypt to Central Park, New York, and who died last week by Dr George L Peabody, in the presence of Drs Wm H Draper, H B Sands and E C Seguin, of New York, and Surgeon Thomas Hiland, of the Navy, Mr Gorringe's brother-in law It was found that death was due to sarcoma around the spinal cord and pressing upon it, the growth apparently having originated at the left side of the sixth dorsal vertebra There were also secondary deposits at the head of the sternum and in the lungs, liver and kidneys The disease had probably begun several months before the patient was confined to his room, and it was impossible to say whether the accident which he met with a year ago at Philadelphia in jumping from a train while in motion was concerned in its causation or not

A pathological laboratory has been fitted up in connection with the New York Polyclinic, and the Faculty has secured the services, as instructor, of Dr Frank S Billings, editor of the *Journal of Comparative Medicine and Surgery*

The steamship Colon, of the Pacific Mail Line, arrived July 15 from Aspinwall, and on reaching quarantine the captain reported that three men had died of Chagres fever during the voyage, and that two more were suffering from the same disease All those attacked with it were steerage passengers

Buddensiek, the notorious builder whose row of flimsy new tenement-houses tumbled down and killed one of the workmen engaged in their construction, has been convicted of manslaughter and sentenced to ten years' imprisonment at hard labor, together with a fine of $500 In pronouncing sentence the judge made some very sensible remarks, in the course of which he said that the jury in this case, the first of its kind in New York, rendered, in his judgment, a verdict in entire accordance with the evidence presented to them on both sides of the case The difficulty under which the defendant labored had arisen, he said out of a base motive to acquire money without giving any adequate return for it This man had built a very large number of houses in the city, and, so far as he had been able to learn, hardly one of them had been properly constructed It was simply an act of Providence that these buildings fell at the time when they did, before they were occupied, thus saving, no doubt, the lives of a great many persons In concluding he said "And I regret to say, from what I know of my own experience in this city, of a good many years' duration, that there are other people here engaged in the construction of the same kind of buildings as this man put up It is necessary to teach them that the consequences will be very serious to themselves, as well as to other people I have considered this case carefully, and have arrived at the conclusion that this man should be severely punished as a warning to other persons not to follow in his footsteps "

Mrs Dudley, the assailant of O'Donovan Rossa, who was acquitted on the ground of insanity, has been sent to the Homœopathic Insane Asylum at Middletown It was proposed to place her in the State Asylum at Auburn, but her lawyers succeeded in getting her consigned to the latter institution, as they believed that from it an earlier release could be secured P B P

NECROLOGY

DR JOHN CORSON

This able and well known physician died at his home in Middletown, Butler Co, Ohio, on June 19th, 1885 He had not been in vigorous health for some time, but was able to do professional work until very near the end His death, however was sudden and unexpected, being caused by basal meningeal hæmorrhage

Dr Corson was born in Butler Co, Ohio, on June 29th, 1825, and was married to Miss Caroline Martin in 1852 He graduated at the Medical College of Ohio in 1863 He practised medicine in Jacksonburg, Butler Co, for twelve years, the remaining years of his life being spent in active practise in Middletown

He was a member of the Ohio State Medical Society, and of the American Medical Association He was possessed of a strong intellect, an unusual amount of common sense As a physician he was honest, earnest, industrious, intelligent, skillful, as a citizen, enterprising, public spirited and upright, as a friend, generous and true, and as husband and father, faithful, indulgent and affectionate.

No man in his community was more honored, no physician more respected and beloved. His wife died only about two months before him. Three daughters survive to bear this great bereavement.

BOOK REVIEWS.

Bedside Urine-Testing, A Clinical Guide to the Observation of Urine in the Course of Work. By Geo. Oliver, M.D. London. Third Edition, pp. 260. London: H. K. Lewis. 1885. New York: J. H. Vail & Co.

The author devotes the first three chapters of his work to a somewhat minute consideration of the physical characters of normal urine, pointing out the clinical significance of the usual variations therefrom. He next considers the forms of proteids found in the urine, dealing more in detail with peptonusia, its cause, significance, and the most reliable methods of its detection. He suggests that peptones may appear in the urine through failure of their precipitation on the duodenum, as by their excess after a heavy meal, or through a deficiency or excess of bile, the latter being the normal precipitating agent.

The succeeding four chapters are devoted to qualitative and quantitative estimation of albumin in the urine by means of proper tests, which were first introduced by the author over two years ago. Brief hints are also given on the clinical significance of albuminuria. Of the test papers for albumin, the author now advises the use of but two, viz.: the 'mercuric' and 'ferrocyanic.'" He no longer advises the papers to be dropped into the urine directly, but into 60 m. of water, to which the urine is afterwards submitted gradually by means of the pipette in varying quantities from 4 to 30 drops, "varying with the re-agent selected and the range of albumin detecting power prefered." Besides the advantages from this method of procedure claimed by the author,—such as securing a definite range of albumin detecting power,—in the case of the 'ferrocyanic' paper, it obviates its only source of error, viz.: the occasional throwing out of urates which is prevented by the large dilution of the urine. In the case of the mercuric paper, where a precipitate is formed, the correcting agency of heat must be called in to eliminate possible errors. This, however, is unnecessary in the case of the 'ferrocyanic' paper.

In the next three chapters, the author deals with the qualitative and quantitative estimation of sugar in the urine, and the clinical significance of glycosuria. In addition to the indigo carmine test paper proposed in the last edition, the author now brings forward a copper test paper made from the tartrate of cuprammonium, which is claimed to be a reliable test for the presence of sugar in the urine, and permanent after long exposure to the atmosphere.

The last two chapters are devoted to the consideration of the bile derivatives found in the urine, under the heading of what the author terms "choluria." The bile pigments found in urine are easily revealed by several acid tests, and the author adds to these another, viz.: a citric acid paper with heat. The necessity, however, of a reliable test for the bile salts has long been felt, and the author proposes as such a paper charged with acidulated antiseptic solution of peptone. A solution from such charged paper develops a white precipitation at once in contract with bile salts. A quantitative method is worked out from a standard of opacity, similar to the authors method of quantitative albumin testing. Some interesting and very important hints are suggested by the author on the clinical significance of the bile derivatives in the urine—notably their possible agency in the production of uraemia. The author is among the few writers who use the word albumin (termination *in* instead of *en*) as applied to serum albumin, which we believe is strictly correct.

The little volume bears evidence of much painstaking original work on the part of its author, in a most practical and important field. The profession is certainly indebted to Dr. Oliver for rendering it possible to readily form a really comprehensive idea of the morbid conditions of urine at the bedside of the patient, by means of his ingeniously devised paper tests. The practical value of such ready knowledge, available at the same time that other organs are passing under clinical inspection, can not be over-estimated.

ASSOCIATION ITEMS.

MEMBERSHIP BY APPLICATION.

At the meeting of the American Medical Association held at Washington, in May, 1884, an amendment to Regulation II was adopted, which provides that membership in the Association shall be obtainable by any member of a State or County Medical Society recognized by the Association, upon application endorsed by the President and Secretary of said Society, and shall be retained so long as he shall remain in good standing in his local Society, and shall pay his annual dues to the Association. Hitherto attendance as a delegate at an annual meeting has been necessary in order to obtain such membership.

Application for membership, accompanied with Five Dollars, for annual dues, and the Certificate of Membership in the local Society, should be sent directly to the undersigned, on receipt of which the weekly Journal of the Association will be forwarded for one year.

Richard J. Dunglison, M.D.,
Treasurer.
Lock Box 1274, Philadelphia, Pa.

MISCELLANEOUS.

Compensation of Medical Counsel.—The Supreme Court of Michigan, in the case of Thomas *vs.* Caulkett, decided June 17, 1885, rendered a decision of some interest to the profession. In that case it was held that a contract between a physician and a party injured by a railroad company that the physician should go with the injured party to the counsel and medical advisers of the company and explain the nature and extent of the injuries, and receive as compensation for so doing an amount graded by the amount awarded by the company, was illegal and void Had the physician explained to the advisers of the railroad company the nature of his contract and employment, the contract would have been legal Reported in 24 N W Reporter, 154

FERRAN A CHARLATAN —The *Chicago Tribune*, of July 22, contains a letter from Barcelona, written by a pupil of Koch, containing an account of a visit to Dr Ferran He says I introduced myself as a student of Dr Koch, and the Spaniard treated me to a sneer, a bow, and an abrupt "What can I do for you?"

"I would like to learn something as to your inoculations," I began, adding, "I am an American"

"I do not propose to acquaint you or any one else with my secret," the doctor interrupted "It is my property and is not to be revealed, though ultimately I may sell the right to use it in other countries than Spain"

"You would steal my secret!" he sneered, and Dr Pauli opened the door, to indicate that the interview was at an end I came away feeling snubbed, but more determined than ever that I should see the matter to its end In my opinion the man was not a legitimate worker, and I wanted to find out his method

Having borrowed a suit and an apron from a tailor, and having stained his face and arms brown, he again sought out Dr Ferran in order to be vaccinated, as he was bent upon finding out as much as possible

"It was not a very pleasant experience to court, but I could not get the substitute, and there was no alternative, so three or four hours after I had visited the doctor I was again in his presence, and the assistant had me by the arm He jabbed a sharp bistoury under my skin at a point just above my left elbow in a business-like manner Then he took a bit of a brownish unguental substance and inserted it under the integument, covering the wound up with a wafer of sticking-plaster, the whole proceeding reminding me of a rude way of vaccinating to protect from smallpox The operation completed, the fellow told me that an eruption would appear at the seat of the vaccination, and that violent catharsis ("induced cholera" he called it) would follow As an adjuvant to this, he gave me three little pills, bidding me take one after thirty six hours, and the others at the 72d and 108th hours respectively

"Though I hastened to get out of the crowded hospital and to my hotel, that I might there examine the wonderful culture-fluid that I carried in my arm, some twenty minutes necessarily elapsed, and later I had the "symptoms" As soon as my door was closed I tore off the plaster and extracted as much of the unguent as I could There may have been microbes in the stuff I hope so My analysis showed that it was a compound of something more than culture-fluid In it was elaterium, and croton oil, and vaseline, and perhaps other ingredients! In the three little pills were the same drugs—both of them the most violent of cathartics Subsequently I found that all who are vaccinated have to take the pills The result any physician or druggist can tell of

"It is charlatanry To disprove it is an impossibility Unless mine was an exceptional case, the inoculations consist in a subcutaneous *injection of* powerful hydragogue cathartics, under cover of a *bona fide* vaccination, supplementing this treatment with a dosing with pills of the same trash The croton oil under the skin causes an eruption and a sore that rapidly becomes pustular and painful The elaterium helps the oil to be efficacious, and it produces a systemic action which, in the depression that follows, simulates the choleraic collapse The dejections have an appearance and a composition similar to the "rice-water" discharges that are so characteristic of cholera In truth, the action of these two cathartics—especially if followed by dosage at intervals of thirty-six hours for nearly five days—will produce a condition strikingly analogous to the terrible epidemic It is a grand piece of fraud If any one doubts it, the Ferranian experiments can be had with the drugs, and a certainty of the symptoms that the Madrid Academy dilates upon so eloquently

"I wonder at such a stroke of smartness in a Spaniard, and humbly hope he is not an American in disguise The thing has the flavor of wooden nutmegs decidedly, and at any rate the man is a genius who can gull thousands and attract universal attention by taking the name of the cholera microbe in vain, and physicking people so deftly that they have the redeeming symptoms of a disease that will not be trifled with in any such way"

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM JULY 12 1885 TO JULY 17 1885

Lieutenant Colonel E P Vollum, Surgeon, to be relieved from duty in Dept East on the expiration of his present leave of absence, and to report to commanding general Dept Platte for assignment to duty as attending surgeon at the headquarters of that department (S O 159, A G O, July 14, 1885)

Major J V D Middleton, Surgeon, leave of absence extended fifteen days (S O 159, A G O, July 14, 1885)

Major J M Brown, Surgeon, Captain Clarence Ewen, Assistant Surgeon, Captain A W Taylor, Assistant Surgeon, and First Lieutenant W C Borden, Assistant Surgeon, ordered to prepare for field service (S O 64, Dept Platte, July 9, 1885)

Captain W W Gray, Assistant Surgeon, relieved from duty at Ft Barrancas, Fla, and ordered for duty at Ft Columbus, New York Harbor (S O 147, Dept, East, July 13, 1885)

Captain Junius L Powell, Assistant Surgeon, ordered from Dept East to Dept of the Mo

First Lieutenant Henry P Birmingham, Assistant Surgeon, ordered from Dept Mo to Dept of the East (S O 155, A G O, July 9, 1885)

First Lieutenants G L Edie and C S Black, Assistant Surgeons, ordered for duty with troops en route to Dept Mo (S O 78, Dept Texas, July 15, 1885)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING JULY 18, 1885

Owens, Thomas, Assistant Surgeon, granted sick leave for one month, July 14, 1885

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol V CHICAGO, AUGUST 1, 1885 No 5

ORIGINAL ARTICLES

RESUME OF DR J MORTIMER GRANVILLE'S BOOK ON NERVE VIBRATION AND EXCITATION, WITH NOTES OF CLINICAL EXPERIENCE WITH THE PERCUTEUR[1]

BY ASA F PATTEE, M D ,
OF BOSTON MASS ,
PROF MATERIA MEDICA AND THERAPEUTICS COLLEGE OF PHYSICIANS AND SURGEONS AND LECTURER ON DISEASES OF THE NERVOUS SYSTEM

My object in reading this paper is to introduce more generally to the American medical profession the ideas of the somewhat eminent English physician and author, J Mortimer Granville, M D , on nerve diseases and their treatment, as set forth in his recently published book entitled "Nerve Vibration and Excitation " Dr Granville has for the past ten years or more been before the English medical profession as an investigator and author, and his contributions to the *London Lancet* have attracted the attention of scientific minds in this country, as well as in Europe, and looking upon this book as the accumulated evidence which can come only after years of study and experiment, it may well be regarded as a valuable epitome

The earnestness and enthusiasm which he evidently feels in his labor, must be his excuse for the minutiæ and repetition of detail, as well as for the proclivity which his theories frequently exhibit of asserting themselves as *facts* upon the slightest provocation In this paper I shall freely use the author's own words, as best illustrating what he would have us understand to be his meaning, but in the application, or treatment, I shall give only my own clinical experiments and their results

We must look upon Dr Granville as the originator of this idea of mechanical nerve vibration as a curative agent in nerve troubles, and there can be no doubt that his theories, if they should prove correct, will throw much light upon the mysteries of many of the nervous phenomena His argument, as taken from various parts of the book, and arranged systematically, is as follows "When nervous tissue acts, its essential elements, viz —cells and fibres—vibrate It follows that by throwing these elements into vibration by mechanical movement, we establish a condition favorable to the discharge of nervous force from the centres affected, and at the same time stimulate the nerve centre when discharged, to develop new force, to compensate for the loss of energy expended in exercise Cells vibrate as bodies suspended in the intercellular stroma of the gray matter, and fibres vibrate as delicately poised rods, or strung cords within the partile cylinders, formed by internal prolongations of the neurilemma, or sheath "

"When deposits take place in the progress of disease, in the interstices of a nervous cell bed, or between or upon the layers, or partition walls of a nerve sheath, or when the connective tissue forming the framework of a nervous structure proliferates, the vibrations of cell or fibre are mechanically prevented, and the discharge, or transmission of nervous force from a centre, or along a nerve, becomes physically impracticable Normal vibrations consist of movements of the constituent parts of a nerve within its sheath, and when these become inordinate, or disorderly, they are propagated to the sheath itself and then become painful "

"Under this last mentioned condition, the wave of vibration is likely to be propagated along the sheath of the nerve, and through it to the sheaths of other nerves with which the first in order of disturbance may be mechanically related, either by direct contact, or through intervening tissues "

"It is necessary at the outset to distinguish between vibration and excitation The former does not always—though it does generally—involve, or induce the latter, and the latter—that is, excitation of a nerve—may probably be affected by other means than by vibration, even when a vibratile body, or instrument is employed, to excite the nerve, although the nerve is undoubtedly thrown into a state of vibration as soon as it becomes excited " He explains this seeming paradox as follows "When the practical physiologist (the only interrogator of nature whose results are wholly worthy, and entirely trustworthy, I mean the vivisectionist)—draws his needle with a light hand across the sheath of a nerve, or presses the point of his instrument upon it steadily, he excites the nerve or centre, which means that he throws it into vibration "

He says, in corroboration of this "Every organ in the body, from the liver to the testicle, may, in the absence of utterly disabling organic disease, be made to perform its proper function by exciting the nerve which supplies it with energy, by mechanical vibration "

---

[1] Read in the Section on Practical Medicine Materia Medica and Therapeutics at the Thirty sixth Annual Meeting of the American Medical Association

Though this statement sounds somewhat extravagant and premature, when we consider that this conclusion has been arrived at through the experience of but one man, and that, too, in support of a theory of his own, yet he hastens to confirm it by the following statement 'In this way I have seen the liver unloaded, and what seemed to be inveterate torpidity of the bowels remedied in a few successive vibrations "

I think every one will concur with me in praying that so far as the inveterate torpidity of the intestines is concerned, this statement may hold good In connection with this, I will give here his "notion" of morbid activity "My notion of morbid activity is this I believe, as previously affirmed, that under normal conditions, when a nerve-cell or fibre becomes active,—the one in receiving impressions, or discharging force, the other in transmitting sensory impressions, or reflex or direct motor impulses,—the essential elements of the nervous tissue vibrate mechanically in their beds or cylinders When either the vibration of cell or nerve are unrhythmical in themselves or discordant with the vibrations of other cells or nerves, which they may either throw into disorder, or inhibit (and perhaps this is the true explanation of the inhibitory process), they propagate the commotion the disturbance has set up to their sheaths or envelops, and the activity becomes disorderly and painful " Now this is, of course, simple conjecture, and ere we endorse it as "the true explanation of the inhibitory process," it would be wise to treat it after the direction we sometimes see on the bottle of some unfortunately compounded prescription "To be well shaken before taking" At least for the present it certainly ought to be labelled "unknown" and put aside for future investigation, with several other ingenious ideas which vibrated the author's brain at that time

In the chapter devoted to the conditions in which this instrument may be advantageously used, he gives us his definition of that condition known as "pain" I will quote only sufficient to make plain his meaning, collecting them *en masse*, as they are somewhat disconnected "If I am right in my theory that pain occurs when the vibration of the essential elements of nervous tissue extends to the beds of cells, and the sheaths of nerve fibres, it is easy to understand how compression of a nerve,—either by force applied directly to its trunk, as when the ulnar nerve is squeezed as it passes behind the inner condyle of the humerus, or by distension of the surrounding tissue, from congestion of the vessels,—or by effusion,—causes pain, and why the pain is proportioned to the constriction, short of extreme pressure, which must, of course, altogether prevent vibration of the nerve affected As the nerve is compressed, its sheath is forced in upon the nerve elements, and necessarily becomes irritated by their disorderly vibrations " As foundation for the support of this theory, he argues as follows "Without such an explanation as this theory of pain affords, it has always seemed to me unaccountable that so little pressure,—a very little at the most,—as can be caused by the congestion of a swollen finger, should occasion so much agony as is experienced, for example, in whitlow, or that the throbbing of the arteries should be as acutely and painfully felt as we know to be the fact In this way, also, one branch of a nerve whose sheath is vibrating painfully may communicate its vibrations to another sheath which happens to be in juxtaposition," etc , etc

I will make no further extracts from this part of the subject, but proceed to the *rationale* of this process of relief, which,—from what I have already quoted on nerve vibration and excitation, both natural and morbid—may easily be understood from the following "The *rationale* of the process of relief is to overpower the tumultuous vibrations of the nerve elements within their sheath, by communicating an independent and vibratile motion to the nerve as a whole " This will, I think, be sufficient as a key to the author's argument for nerve percussion

While he disbelieves that electricity possesses any percutient powers, he thinks magnetism, which he considers to be a simple physical action, may be successfully used as a medium for nerve vibration He reasons as follows "We do not fully appreciate the effect of subtile or subtilty forces acting on the organism

"When the so called mesmerist induces a state of hypnotism in his patient by simply blowing on the face, or when by 'passes' he impresses the retina, he acts physically on the terminal twigs of highly sensitive,—and generally educated—nerves, and induces a set of actions, which though notably in themselves, are no more mysterious in the manner of their production, than the involuntary strong muscular action excited by the tickling of a hair, or a feather, or the crawling of an insect "

He neglects, or probably ignores, to recognize how much the condition which Carpenter terms "expectant attention" has to do with "mesmeric passes," or, indeed, with any form of medication, not even excepting the percutient, for the more mysterious the method the greater is the patient's attention concentrated, and credulity exercised His reasons for considering electricity impotent to bring about this effect, will, I believe, not bear investigation

He says "That current simply uses the nerve structure as a conductor and passes along it without throwing it into vibration Electricity travels in the line of least resistance without relation to the particular tissue which offers itself as a conductor, except so far as regards its capacity for receiving and transmitting the current Electricity will pass along the tract of a nerve, taking the place of nervous energy, and itself producing the phenomona of muscular contraction, instead of eliciting nervous force from the nerve centres "

My opinion is, that we are not yet able to estimate the effects which even atmospheric electricity has upon "sensitives," or highly nervous organizations, especially when morbidly sensitive by disease The cause of results, either beneficial or deleterious from living in certain regions, has not yet been attributed wholly to the right source Why a neighborhood of 20 miles area will have cases of idiopathic asthma at the rate of ½ per cent , and why, upon going outside of that area, their asthmatic condition ceases, is yet a mystery To say "'tis something in the atmosphere," is far from solving it We know that these electrical currents have much to do with the vigor and growth of the vegetable world We know that there are diurnal tides of atmospheric electricity, this fact is equally as certain as that of the tides of the ocean, and there are also annual tides, the quantity of electricity being greatest in winter, the increase from summer to winter being gradual I believe that when these facts are more generally understood, we shall come nearer solving the question of why people living in the same climate should not be equally affected, beneficially, or otherwise, the answer being that the idiopathic conditions of some require more electricity—atmospherically—than that of others

These problems may be labelled *Psychical Phenomena* and placed among their numerous kindred, but the time is fast approaching when that term *Psychical* must have an intelligent definition and an honorable position Science is out after these so regarded "Airy nothings" and is making for them a "local habitation and a name"

That symptoms do exist in certain forms of nervous disease, which should be accredited to statical changes in the atmosphere, all scientific minds must admit Our best authors recognize this fact, especially the more modern ones, although Dr Granville does not Yet in illustration of some of these conditions, or phases which are generally ascribed to the state of the atmosphere, I can give no better description than by quoting the author himself, who, while discussing diseases of morbid irritability, and the sudden and mysterious changes which the patient presents, speaks as follows "At times an ataxic patient will walk well, at others he can scarcely stand One day he can perform almost any desired movement, while on another he can scarcely do anything in an ordinary fashion Nor is it possible to connect the variations which take place in his power of coordination with the mental, or bodily state, at least I have failed to establish any such connection Sometimes I have thought a patient more orderly in his movements when he was a little depressed, at others, when he was brightest

"Treating many cases at the same time, I have observed a tendency on the part of each, and all of them,—although not in communication, even in my waiting-rooms—to be at their worst on the same day, and have natuarally looked to the weather, or the state of the atmosphere, as regards temperature and moisture, and electrical conditions, for an explanation, yet I cannot say that I have succeeded in discovering any connection"

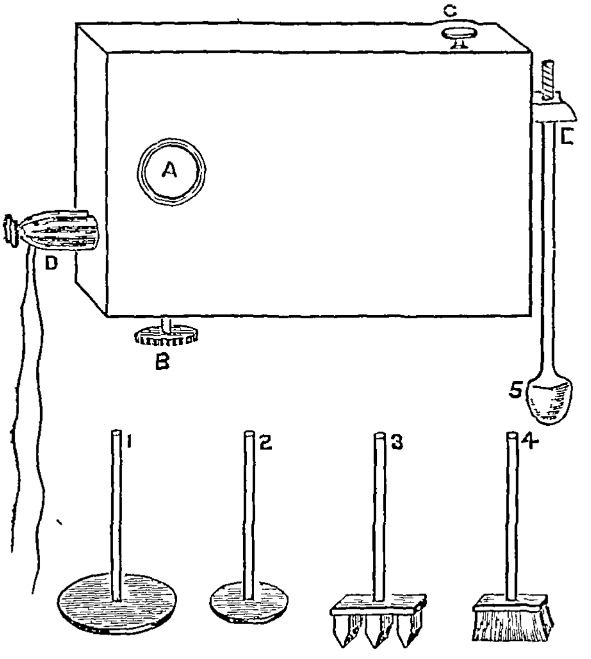
Now, although I most heartily enter into the spirit of many of the ideas of our author, yet I am not ready to cast aside everything, either in science or nature, which does not harmonize with his present state of reasoning His arbitrary way of fashioning circumstances to suit his conclusions, suggests the query, which of the two alternatives he would adopt, if by chance, he should have a case which did not yield to nerve-vibration, (or percussion) Would he dismiss the case, or would he change the treatment? Like the tailor in the story, would he make the coat to fit his man, or undertake to make the man fit the coat? Although we are continually being disappointed with the results of electricity when used in diseases of the cerebro spinal nervous system, yet I am very much of an opinion that the fault lies largely within ourselves, for we are, as yet, altogether ignorant of this agent which seems to promise so much in a large variety of ways, and is at present the foremost object of interest with scientific people

But let us return to our subject The pages which our author has devoted to the consideration of locomoter ataxy are, I consider, vastly suggestive, and hence interesting His theories that this morbid condition,—loss of coordination,—is caused by something other than loss of sensation, and his efforts to prove the same, are worthy of careful attention He says, (as showing the correctness of his conclusions), "In the course of the disease, or diseases,—for I believe there are several,—which have loss of coordination for one of their prominent symptoms, it will soon be apparent to the careful clinical observer, that the essential morbid condition is a block, or undue resistance in the course of the motor nerves The notion that loss of sensation is the primary fault may be dissipated by a simple, familiar experiment" The experiment which he mentions is, *to tell the patient to place his toe on a certain figure of the carpet, this act he will show his inability to perform, long before his foot has come in contact with the carpet* His foot will be projected out one side, or beyond the spot, because, as he says, "the patient fails to make his muscles obey his will" I cannot forbear expressing the hope that his reasoning may prove to be correct

I must be allowed here to quote the author's opinion as to the etiology of this disease, as it more fully illustrates what he would have us to understand, and then we will turn to an investigation of the instrument itself, which is to rectify these conditions —we will hope "What then, is the explanation of the etiology of Tabes which I have to submit? Briefly this I believe the disease to be at the outset a disorderly vibration of the nerve-cells, or fibres; and in the end, an arrest of vibration altogether. The first organic cause is, I think, change in the neurilemma, and in the syphilitic type of the disease, I believe the specific inflammatory action followed by deposits, extends along the course of the nerve sheaths, ascending to the centre from the chancre" I will quote no farther, as I believe I have made his theory sufficiently plain To those who may be desirous of further detail, I only recommend that they read the book

Before receiving Dr Granville's book, I had one of his instruments sent me from England This I found upon examination, to be just what the author himself had said of it—far from satisfactory It does not furnish means sufficient to bring about the ends desired In other words, to reach every phase of nerve vibration would be simply impossible to do with an instrument which permitted of no modification in its percutient or striking power This instrument suggested to me something which might be much more satisfactory This instrument he calls the "Clock-work Percuteur" because 'tis set in motion by winding up a spring inside, it consists of a simple train of cogged wheels, worked by a spring, and acting on a lever which carries an ivory hammer " This machine is in the form of a box 6 to 8 inches in length, and somewhat pointed at one end On one side is a pivot by which this inside arrangement is wound up Parallel with this is an ivory button which upon pressure keeps this hammer in motion, and on the tapering portion in front, is a button which, in an almost imperceptible degree, regulates the force, and speed of the hammer, and lastly, the hammer itself, which in this instrument is a small point of ivory, projecting about 1 16 inch from the outside, and immediately beneath the regulating button

The impossibility for this instrument to answer the requirements which an almost indefinite variety of pathological conditions would demand is quite apparent In the first place the operator is obliged to stop every two minutes and wind it up Again the force of the blow, at its best is not sufficient, (save it may be in rare instances), as in this treatment the ultimatum is to ' throw the nerve into a new state, or series of vibrations " To do this satisfactorily in all morbid conditions would require a variety of hammers and great liberty in regulation of speed and force of the blow, that is attained in the instrument shown below



A Button to set the instrument going B To regulate the force of the blow C, To regulate the rapidity of the stroke D Connects with battery E Holds hammers 1 Large disk 2 Smaller disk 3 Triple pointed hammer 4 Brush 5 Olive pointed hammer

My machine is an electro motor, similar to that used for electric bells, and the power comes from a battery of from six to ten cells It is 4¼ inches in length, 2¾ in breadth, and 2⅛ in width There are two binding-posts on the end, to connect it with the battery On one side is an ivory disk that makes the circuit by pressure, on the top of the machine is a thumb screw which regulates the vibration, and on the bottom there is also another thumb screw to regulate the power of the stroke The lever on the top runs out about ¼ of an inch, and has an aperture, in which the different hammers are held, as it is imperative that there be a variety of shapes and sizes, for I have found that each case requires a strictly individual treatment What the peculiarities of that treatment must be will have to be determined by the wit and experience of the operator I use mostly the olive-pointed hammer, the small pointed hammer, the large and small flat hammers, the oblong hammer, and the triple-pointed hammer, and occasionally, as in treating the optic centres, I use a disk

I felt that the greatest advantage my instrument possessed over Dr Granville's was, that it could be attached to any galvanic battery and thus be run by electricity, but this idea, although entirely original with me, had, I found, upon reading his book, been suggested to some other mind who probably saw the same defects in the percuteur which suggested the improvement to me So it is probable that the electrical percuteurs are in the market, and available to every physician, though I doubt if they have, as yet, been introduced into this country

The horror which our author expresses of having his method of treatment get amongst the "irregulars" can be well understood when we consider the abuse which electricity has received from this class, who have made it an object both of terror and derision

Until of late, our knowledge of the mechanism and functions of the nervous system has been both limited and unsatisfactory One after another of the theories on the treatment of nerve derangement have proved futile, thus showing very conclusively that we have not yet become sufficiently well acquainted with the construction of the instrument we are trying so hard to attune We have known a few deadly remedies, and these we have hurled at certain "symptoms" with the reckless force of ignorance, unaided by the aim of any absolute knowledge Look, for example, at our extravagant use of phosphorous, engendering conditions—as formerly prepared—more fatal than those which we hoped to remove We have been in the habit of trying remedies one after another, till finally, if the patient survives the end of the list, he is dismissed as incurable, and disappears from our medical horizon Then it is that this mistaken practitioner avails himself of the always open columns of our medical journals to show up the therapeutical short comings of this or that remedy he has so blindly employed, and if the name of the writer be sufficiently well known, the drug will be relegated for awhile to swell the number of misapplied remedies

It is commonly known that a nerve, physiologically considered, is composed of two great divisions, the first presenting the fibres, or tubes, the latter the cells, and that through these is generated "nervous force," the fibres acting as conductors, also that the nervous system is entirely distinct from all other systems of the animal organization, and that all other systems are dependent upon this one Any knowledge more definite than this is, we must admit, the exception rather than the rule, amongst the general class of physicians

But let us now turn our attention to the practical illustration of the utility of percussion as a means of cure in nerve disturbances I have recorded several cases which were treated by this method, and the results show, I think, very favorable evidence that Dr Granville's theories were not without some scientific foundation And if so, we have taken a mighty stride towards solving the hardest problem in neuro dynamics

Case 1 —Torticolis, or Wry Neck — A married woman, aged 29, of extremely nervous temperament, and suffering from mental trouble brought on by death of child Electricity had been applied by a competent person but this seemed to aggravate the case The muscles of the right side were affected This condition had existed for several months Not only the sterno mastoid, but the deeper groups of muscles were involved As the motor filaments of the pharyngial branches of the pneumogastric are derived from the spinal accessory, I directed my treatment to the base of the occipital bone, across to the upper part of the sterno mastoid, following the course of the nerve as closely as possible

The treatments were daily, and of fifteen minutes duration The percuteur was firmly held against the surface—though not pressed down—so that the whole force of the blow might be obtained Eight cells of the battery were employed, and I used the olive-pointed hammer, tracing the course of the nerve upwards and downwards, and over the clavicular portion of the trapezius muscle At the end of the first sitting, the muscles of the neck were a trifle relaxed, the patient being able to turn her head slightly, but the next day found the old condition to be almost re instated However, on going over the same treatment, I found the improvement still more marked than that on the day previous, and, to cut a long story short, the condition improved under each treatment, the deterioration between times becoming less noticeable

At the end of three weeks the patient presented no signs of wry-neck, and the corresponding muscles of the other side had regained their normal condition I varied the treatment somewhat, as the case progressed, by passing the hammer down either side of the spinous processes, pausing a moment at each The entire cerebro spinal nervous system seemed to respond favorably to this treatment, and the result was, complete restoration of health, and no inclination, so far, to any return of the torticolis

This patient had already gone through the usual list of nerve remedies I ordered that all accessory treatment should be stopped, save good nourishing food, pleasant surroundings, and all other necessary and proper hygeinic conditions

Case 2 —Anæsthesia of Right Leg —This occurred in a young man aged 18 years He complained of loss of sensation in the posterior portion of the right leg, otherwise his condition was that of perfect health The spot was about as large as my hand, and located over the belly of the biceps muscle Two winters previously he met with a fall while skating, and dates the commencement of the trouble from that time Irritating liniments, and various other external remedies, had been applied, with no other result than leaving an ugly looking surface The loss of tactile sensation was almost complete He suffered no pain There were no symptoms which showed any implication of the sciatic or its branches

I began treatment by applying the conical hammer over the affected part, my object being to vibrate the internal cutaneous branches At the fourteenth treatment the anæsthesia was entirely removed, and treatment was stopped Three weeks later the skin had regained its natural appearance

Though this condition was simply an affection brought on by injury to the afferent nerves, it might lead one to inquire what the treatment should be in case the injury extended to the branches of the sympathetic I reply, that the cutaneous may sometimes be made to act as conductors to other branches which pass more direct to the trunk of the affected nerve Perhaps this may be better understood if I quote our author, who says (while speaking of chorea) "Strive to impress the centres by percussing mixed or different nerves on that side of the surface of the limb opposite the line, or direction of the choeric movement, or, by percussing nerves through which antagonistic muscles might, if the case were a suitable one, be called into action reflexly " The folly of wandering around with the percuteur, as operators are largely in the habit of doing with electricity, will, I believe, be sufficiently apparent

Case 3 —Paralysis of Left Side, after Apoplectic Seizure —Mr B, aged 59, had hemiplegia of the left side, the result of an apoplectic attack three years before He had abandoned all hope of recovery, and came to me for treatment of the constipation only His arm and leg were perfectly limp and useless, the forearm and hand were considerably atrophied, and the sense of touch impaired His business kept him "on the road," but previous to this attack, according to his own statement, had always felt perfectly well, never suffered from neurasthenia in any form The mental faculties were unimpaired He had been what he termed "a high liver" Denied ever having had syphilis, and indeed there were no traces of it Said he had tried electricity, but I had no means of knowing whether it had been intelligently applied I took this case simply for experiment, my method of treatment, which I shall relate as briefly as possible, was as follows

Every day, at precisely the same hour, the patient was disrobed placed on a high stool, which just permitted the feet to rest upon the floor, the left arm was extended and held in a horizontal position by means of straps, then the pointed hammer was slowly moved up and down each side of the spine for thirty minutes This course was pursued for one week After that, I began the treatment by percussing the spinous processes the whole length of the spine, with the flat hammer, for twenty minutes This was kept up for one week more I now had the satisfaction of seeing a slight change, the patient could raise his arm a few inches higher after each treatment

The bowels now began to be more regular, but for increase of the peristaltic action I percussed over the perineal nerves, this accomplished the desired effect My patient could now move the foot upwards and downwards after each treatment, and had a little control over it when walking I now directed a portion of the time to treatment of the different fibres, but there is no need for further detail

The patient could, at the end of the third week, lift the foot slightly when walking, carry the hand to his head, and also button his vest with the fingers of that hand The treatment was kept up regularly for 48 days The atrophied condition of the hand and forearm was fast disappearing, and the bowels were regular

At my suggestion the treatment was postponed, and he left the city to pursue his business

Three months later he called and the improvement was still more marked, the limb could be used quite freely, although there was not much strength in it, the power of that side being about half that of the other

I think this case may be regarded as something remarkable, yet I wish one could know just what the result would have been had electricity been as carefully and scientifically employed in the place of percussion But this, of course can be ascertained only by repeated experiments Experiments which, I must add the physician will find to be quite tedious and time consuming

My reasons for so punctiliously observing the same hour for the daily treatments, was to carry out the idea of our author, who believes in the "force of habit" in nerve action, viz "One interesting fact in relation to the process of excitation by nerve vibration may be mentioned here all the movements excited by percussion of the nerves in a limb, have a tendency to be repeated"

Case 4—Exhausted Brain Power, Cerebral Neurasthenia—Mr White, a gentleman of 45 years, complained of numbness in both hands, the fingers feeling "as if they were done up in cotton," as he describes it Tactile sense was considerably impaired, was often troubled with "dizzy spells," and had become very despondent Examination of urine showed abundance of phosphates

I began by percussing over the cervical sympathetic, and treated the brachial plexus through the afferent branches for twelve days, of thirty minutes duration Then began treating the head symptoms, percussing with the flat-headed hammer the superior cervical nerves and plexuses, by going slowly around the inferior edge of the occipital bone Then, with the brush, I went very lightly over the scalp, going in a slow and methodical manner from before backwards, and from below upwards, for five minutes

At the end of twenty-nine applications the numbness had quite disappeared, and to all appearances the mental disturbance had also gone I must not neglect to mention that I insisted on a complete cessation of duties and cares, ordered a proper diet, and shower-baths And finally, ere he returned to business, he concluded to take a trip to Europe, where he is at the present writing

Case 5—Polio-myelitis Anterio Acuta, Infantile Paralysis—Blanche B, a child of 7 years, had been paralyzed in right leg since three years of age Health has been perfect The mother attributes the paralysis to sitting on the wet ground It came on in the night, accompanied by feverish symptoms All motor power in the limb was gone, the child dragging it along This limb was one-half of an inch shorter than the other, and the muscles were somewhat atrophied This case had been pronounced hopeless by two leading physicians

I had this child brought to my office daily until she had received ninety treatments I applied the hammer over the entire length of the spine, also up and down each side, the child meanwhile suspended in a sort of harness improvised for the case

At the end of the ninety days the paralysis was greatly improved, the muscles were becoming better nourished, and were fast regaining their normal condition The healthy condition of the child, and the strong constitution which it had evidently inherited from both parents, greatly lessened the difficulties in the way of restoration, whether by this process or any other

Case 6—Nervous Deafness, Tinnitus Aurium—A lad of 15, decidedly nervous diathesis, had been suffering from tinnitus aurium for nine months previous to my seeing him Had been "studying night and day"—to use his mother's words—"to pass examination" at school Was emaciated, and decidedly nervous starting violently at sudden noises, and very irritable

I ordered complete cessation from study, and had horse-back riding substituted in place of books

Treatment—I applied the large disk over the meatus auditorious externus, trusting it might act upon the membrane of the tympanum mechanically In combination with this, I percussed over the pneumogastric and sympathetic nerves, giving what I may perhaps be allowed to call "a general treatment" of the cerebro spinal centres The result was, a very complete and permanent cessation of all the head noises, and also restoration of the sense of hearing

Neuralgia—In certain forms of neuralgia I believe percussion will be found a more efficient remedy than electricity, especially in neuralgia of the branches of the fifth nerve, intercostal and cervicobrachial Much care and judgment is required in treating neuralgia by percussion, but the result, if successful, is very soon apparent in the sudden cessation of the intense pain, a most convincing proof, to the patient, of the efficiency of the agent employed

Sometimes the patient may complain of an increase of pain for the moment, due to the new series of the vibrations or waves which the percuteur is establishing, but this rapidly subsides, because, allowing the case is amenable to this form of treatment, 'The elements are compelled to fall into the same rhythmical vibration as that communicated to their sheath by the regular beat of the percuteur, the discord between the nerve elements and their sheath, which is the cause of the pain, and the sensation subsiding together" This makes apparent the object of the treatment, which is to establish a harmony, a rhythm of vibrations between the nerve and its sheath.

The patient should be instructed to speak the moment the pain ceases, and the hammer should be at once removed. If the pain returns within a few minutes, repeat the operation.

In the sharp forms of pain the percussion should be slow, for reasons which I trust have been made sufficiently obvious. If impossible to hit the part of the branch which the pain indicates is the portion affected, it must be approached in a circuitous manner by taking some terminal twig, but the aim of the operator should always be to approach the spot affected in the most direct manner possible. "The point to remember is, that it is with the nerve we have to deal, not with its surroundings," And that "It is useless vibrating over a nerve or centre, unless we can reach it (the nerve)." I submit the following case as illustrating my manner of procedure.

Case 7.—Cervico-Brachial Neuralgia.—Charles B., aged 33, cutter in a tailoring establishment, came to me suffering intense pain in the right arm, the pain extending from the back of the neck to the ends of the fingers, which were swollen and drawn towards the palms of the hand. The surface of the arm, over the brachial muscle, was exceedingly sensitive and cold to the touch. He had consulted a physician who pronounced it muscular rheumatism, and gave him large doses of salicylic acid, quinine, and also used electricity. The electricity caused intense pain, he said, making it "a great deal worse every time it was applied." I do not, of course, know how strong a current was employed, but it is evident the nerve vibrations were augmented rather than diminished. Indeed, I doubt if electricity, as at present understood, does not always have this effect. If this is the case, we then have a solution for the secret of the general failure of electricity in instances where the nerve vibration requires to be *subdued* rather than increased, as in facial neuralgia, and in fact all neuralgic affections of the cranial nerves.

Upon passing the hard brush over the surface, from the fingers upwards, the patient complained of pain as I reached the affected portions of the nerve, the sensitive spots corresponding to the parts supplied by the lower cervical nerves, or regions which are innervated by the sensory branches of the brachial plexus. I used the disk very lightly over these parts, and on the tender spots of the cervical vertebræ, for ten minutes duration, during which time I made two interruptions in response to his declaration that the pain had ceased, for the time being.

In six treatments the painful condition was entirely removed. He resumed labor in twelve days from time of first application. I consider the cure due to my being able to overpower the tumultuous vibration of the nerve elements within their sheath "by communicating an independent and different vibratile motion to the nerve as a whole." I think nerve vibration may also be valuable as an aid in diagnosing the exact locality or seat of nerve disturbance. By passing the pointed hammer along the limb, a reflex action commences as it passes over a morbid nerve. In this way disturbance may be traced from the branches to their trunks, and thence to the spinal cord.

Case 8.—Facial Spasm without Pain.—A gentleman, aged 27, dry goods salesman, had been troubled with spasm of the face, in the region of the buccinator, risorius, and depressor anguli oris muscles. When under excitement the spasms were constant, at other times, when the mind was in repose, the face would be quiet for several minutes at a time. Had used electricity without benefit.

I applied the brush over the terminal twigs of the facial nerve, and kept the percussion up until all tendency to spasm, for the time being, had ceased. The attacks grew less frequent between the treatments, and at the end of fourteen applications, had ceased altogether.

This was a case of several years' standing, and one of great interest to me, as I have heretofore found spasms of this nature very obstinate to overcome.

Case 9.—Chronic Anterior Poliomyelitis.—A gentleman, 38 years of age, was taken, about eighteen months previous to my seeing him, with pains in the left forearm. He applied various remedies, as for rheumatism. The same symptoms soon after appeared in the left leg, then the right leg became similarly affected. The muscles were sore on pressure, and wasting began to show itself. The sensory nerves were not implicated, the sphincters were normal, and brain power unimpaired. When I saw him, there was marked paresis in both legs, and the muscles of the left hand and forearm were considerably atrophied.

My course of treatment in this case was very much the same as that I should have pursued with electricity, viz.: To affect the spinal nerves I applied the hammer up the spine, and on each side of the spinous processes. For reflex irritation I passed the flat hammer over the sensory nerves of the legs and arms, punctiliously observing the same hour for the daily operation which I had observed in the cases preceding this.

The paresis began to disappear after he had received daily treatment for two weeks, and the muscles began to round out. He came every day for three months, at that time the paralysis was quite gone, and treatment was suspended. He continued to improve, and to-day he is, to all appearances, a well man. No internal remedies were given, but some changes were made in hygienic conditions.

Locomotor Ataxia.—Our author has devoted considerable space to the consideration of diseases of induration of the posterior column of the cord, diseases which have for their symptoms pronounced disturbances of the locomotory functions, and defects in coordination and sensation. His theories on the phenomenon of loss of coordination may be condensed in the quotation of two or three lines. He says: "... it will soon be apparent to the careful clinical observer, that the essential morbid condition is a block, or undue resistance in the course of the motor nerves."

He scoffs at the "notion" that the loss of sensation is the first, or "primary fault." He says that "the patient fails to make his muscles obey his will."

And again "Only certain muscles will be strongly energized, though the will is acting powerfully, and the endeavor to touch the object be maintained for a time," etc, etc Every year multiplies cases of diseases of the spinal cord, and with this constant spectacle before our eyes, we cannot fail to be interested in any theory which may lead to the solution of the trouble, or give a suggestion as to the method of treatment The following I consider to be a typical case of locomotor ataxy, as well as showing the method to be pursued when treating this condition by percussion

Case 10—Mr H B G, a married man, aged 43, of regular habits, no traces of syphilis, business, a salesman in a large boot and shoe store When first seen by me, he had become unable to stand erect and walk straight, and wholly unable to retain his equilibrium with eyes closed The first symptoms appeared three years previous with pains in the lumbar region of spinal cord, and trembling in limbs when stooping He feared kidney trouble Shortly after this, one cold morning, after a long walk to the store, he experienced pain in the heel and bottom of left foot, this condition soon made its appearance in the other foot, and he put lamb's wool soles in his boots to protect the bottom of the feet The pain soon extended up the legs and thighs, and he now consulted a doctor, who prescribed syrup of triple phosphates, with stimulating liniments to the limbs He now noticed that he "scuffed" when he walked, and took out the in soles, his feet feeling already terribly "muffled up," to use his language The first symptoms he noticed of "anything wrong" was when, in ascending the short step ladder used in these stores, for the purpose of removing a box of shoes from a high shelf, he could not retain his equilibrium, and a horrible sensation of helplessness possessed him

The objective features of this case are those to be ordinarily found in diseases which have induration of the posterior column of the spinal cord with one exception, viz His hair (of dark color) was white in spots of about the size of a silver dollar, appearing in quite regular order over the entire head These, he tells me, began to appear with the pains in the lumbar region How much, or how little they were connected with the diseased condition, is of minor importance here

My treatment began by ordering complete cessation from business, perfect regimen and hygienic conditions I stopped all internal remedies, and began daily applications over the spine, and along the sides of the column For the hindrance in locomotion I treated the irritable nerves with a light blow fifteen minutes every day, to arrest the disorderly or abnormal vibrations of the nerve cells, and establish a normal condition, after our author, who says

"I believe the disease to be at the outset, a disorderly vibration of the nerve cells, or fibres, and in the end, an arrest of vibration altogether"

"In short, I believe the cause of the malady to be a disturbance of that orderly vibration which is essential to nerve action and function, whether in the posterior, lateral or anterior columns of the cord, or in the nerves that transmit impressions from the periphery, or carry down motor impulses from the centre to the muscles" Of the efficacy of nerve vibration in this condition, he says "It controls the disorder, changes the state, and helps to reestablish that mobility of the nervous elements which is essential to health"

I began my work upon this subject just thirteen weeks ago, and he is still under my care At the present time of writing, the indications are certainly encouraging He has almost completely overcome the locomotory disturbance, and, unless something unforeseen interferes, I hope to be able to reestablish perfect harmony of action in the power of co ordination

I have selected the foregoing cases from a much larger number, as best serving to show the results when treatment by percussion alone has been employed Yet I do not know that I can, in truth, say that this has been the only means employed for I have in every instance insisted upon correct hygienic conditions, such as diet, clothing, air, exercise, cleanliness, sleep, and morals

The majority of the cases cited have been of a high and intellectual class, ready and anxious to follow directions, which—it need not be said—is a very powerful auxiliary to any form of treatment What the result in these cases might have been, had some of the older and better known remedies have been used in its stead, of course we cannot tell Several of the patients had used electricity, they told me, but it had been applied either by themselves or by some one equally incompetent It must be admitted that the cases I have cited speak very flatteringly for this method, but many failures are likely to come between these and their duplicates I might record a number of instances where percussion was used in combination with internal remedies, but this would not answer the desired object We want proof of the correctness of our author's theories

If my opinion were asked as to the efficiency of percussion in diseases of the cerebro spinal nervous system, I should say that, like every other remedy, it is subject largely to conditions Like electricity, it may succeed beautifully at one time, and utterly fail the next All other conditions being equal for this form of treatment, it will then be impotent unless handled with exquisite care and skill Failure must inevitably follow if the manner of its application be faulty, hence, however great its possibilities, I fear it can never be an universally popular remedy The physician who employs percussion in the treatment of his patients must "take no note of time," and possess an inexhaustible amount of patience It cannot, like massage or electricity, be passed over to an assistant The percuteur must be in the hand of him who not only is thoroughly familiar with the anatomy of the nervous system, but who also understands the pathological condition of the patient At present we know too little of disease, or its remedies, to throw away uninvestigated any theories which have anything like a scientific basis, as Percussion surely *seems* to have

While our author's idea that percussion is *all* that is required in diseases of the cerebro spinal nervous system may seem illusory, the *test rests with every physician who makes diseases of the nervous system a specialty*

GEOGRAPHICAL PATHOLOGY OF CONSUMPTION

BY G W McCASKEY, A M, M D,

PROFESSOR OF DISEASES OF THE THROAT AND CHEST FT WAYNE COLLEGE OF MEDICINE FT WAYNE IND

III

Altitude —The question of altitude in its relation to phthisis is one of the gravest importance, and has been occupying for some time a large share of the attention of medical writers Treated in accordance with the plan of these papers, of course only the most general deductions can be made If it can be shown, however, that the mortality from the disease at different altitudes is so conflicting as to render a formulated law quite impossible, and make it necessary to study the special indications of each case, an important object will have been attained No greater calamity can befall the advancing study of the climatic treatment of consumption, than the routine habit, so much in vogue, of sending patients to certain localities without determining their special fitness for each case

In the United States every degree of elevation can be found, from certain parts of the coast line which are not more than fifty or one hundred feet above sea level, to the highest habitable limits Along the Atlantic and Gulf Coast line we have a belt of varying width which is less than four hundred feet high At such a low level of course no comparison can be made with high altitudes as forming with them a continuous series, for the investigations of Muller have shown that in descending from mountain elevations towards the plains, the maximum degree of mortality from phthisis is reached at a heigth of from 650 to 1650 feet Below this level, therefore, we may assume that variations are not of much importance, so far at least, as barometric pressure is concerned But along this level belt above referred to, we observe every degree of mortality from consumption found in the United States, from its very highest to about its lowest It is also worth noting that the highest mortality is generally found where its elevation is greatest, and the lowest where it is least These facts are at variance with the oft repeated statement that consumption is necessarily more prevalent in regions near the level of the sea The territory and population involved are so extensive that it can not be considered an exception, dependent upon accidental local conditions

The region comprising New Mexico, Arizona, Colorado, Utah, Wyoming and Nevada, lies at an elevation of from 4,000 to 8,000 feet These states and territories have individually and collectively, the lowest death rate from consumption in the United States, differing but little, however, from some parts of the Gulf Coast, almost at sea level

The group of states from Kansas to Minnesota is about one half as high as the last named region, and has a mortality from consumption nearly twice as great The section of Ohio bordering upon the Ohio river is from 800 to 2,000 feet high, 15 9 per cent of all deaths are due to consumption The lake counties are from 400 to 800 feet high, only 11 2 per cent of all deaths are due to this disease—nearly 30 per cent less than in the more elevated regions Many other facts, incompatable with any possible law except the diminishing prevalence of consumption at high altitudes, might easily be cited

Ruehle says that an elevated position protects from phthisis, but that it must be at least 1,800 or 2 000 feet high That elevation does not protect is conclusively shown by the facts presented Especially by the fact that in Colorado, which is more than 4,000 feet high, more than 8 per cent of all deaths are due to consumption It seems needless to remark that the assertion of Prof F T Roberts that regions situated at a low level present a large number of cases, is altogether too sweeping That consumption is rare in most elevated regions is a fact That these regions, however elevated, within ordinarily habitable limits, confer complete immunity, is not a fact And finally, that the degree of elevation, has an intrinsic relation to the prevalence of the disease is a view that finds no support in the facts which have been presented

The reason why phthisis is rare in elevated regions is not known Niemeyer says distinctly and frankly that it is "without apparent reason" Ruehle says that it is not determined if it is due to low barometric pressure, but that it may be due to purity of air The facts cited by Herman Weber, in his recent Croonian lectures, regarding the number of organisms in the air at different elevations (Tyndall, Pasteur, and others), lends great weight to the latter surmise

Occupation —The question of occupation in its relation to consumption suggests a few facts to which attention may be called For our present purpose we may omit those occupations included in the class designated as professional and personal services, and trade and transportation A little more than one-fourth of all those who have a specified occupation belong to this class Their mode of living and sanitary surroundings are too diverse for analysis The two remaining classes include those engaged in agricultural pursuits, and those engaged in mechanical and mining industries

We will consider the occupations of some of the states in their bearing upon the mortality from consumption, taking as a basis the percentage of those in the second class—manufacturing, mining, etc —to the entire number of those who have a specified occupation Of course it is generally supposed that the occupations included in the second class, with some few exceptions, favor the development of phthsis In the United States about 22 per cent of all those who have an occupation belong to this class When we come to examine the different groups of states we find, what of course was already matter of common knowledge, the major part of our manufacturing interests in the New England and middle states In New England 42 per cent, and in the middle states 43 per cent of all those who have a specified occupation belong to this class, comprising manufacturing, mechanical, and mining industries In the South Atlantic and Gulf states there are but 4 7 per cent, while in the interior and lake states there are 16 6 per cent in the same class Now it so happens that in these different groups of states their sequence when arranged in the order of their manufacturing importance as thus determined, is the same as when arranged in the order of greatest mortality from consumption, with the exception of the New England and middle states But among the individual states forming these groups, the most marked discrepancies are found Practically the same death-rate from consumption is frequently found in different states with manufacturing interests widely variant or *vice versâ*

Arkansas and Tennessee have only 4 per cent and 8 per cent respectively in this class, but their death rate per 1,000 from consumption (1 2 in Arkansas, and 2 4 in Tennessee) is 6 lower in the former, and 6 higher in the latter than the average for these states Tennessee has a smaller percentage of people in this class of pursuits than Florida, while its death rate from consumption is about 2 5 times as great In the remaining States the proportion of this class varies from 12 per cent in Kentucky as the lowest, to 26 per cent in Maryland as the highest There are fourteen States in this section and seven of these are above the average (16 6 per cent) and seven are below it

In the following table the Interior and Lake States are arranged in sub groups, the first containing those above the second those below the average, with consumption death rate for 1880

INTERIOR AND LAKE STATES—GROUP 1

States in which percentage is above average (16 6)

	Percentage of those in manufacturing etc	Deaths per 100 from Consumption 1880
Maryland	26	2 5
Ohio	24	1 9
Indiana	17	2 0
Missouri	17	1 5
Illinois	21	1 5
Wisconsin	20	1 3
Michigan	23	1 6

GROUP 2

States in which percentage is less than average (16 6)

Virginia	13	2 0
West Virginia	15	1 6
Kentucky	12	2 3
Tennessee	8	2 4
Arkansas	4	1 2
Iowa	13	1 2
Minnesota	15	1 1

It will be difficult, I think, from a study of this table, to find support for the view that those engaged in manufacturing, mining, and mechanical industries are more liable to consumption than the class following agricultural pursuits In the sub group containing those States below the average there are three States with a death-rate from consumption above 2 0 per 1,000, while in the other group there are but two On the other hand, geographical distribution will be found to be apparently a much more important factor For example, all States in this group west of the Mississippi river have a death rate from *consumption of less than 1 5 per 1,000, while in all* those east of this river, with one exception (Wisconsin), it is 1 5 or more

In the Middle States the figures fail to furnish any support to the theory, 43 per cent of those with occupations are in the class we are considering New York has 53 per cent with a death-rate of 2 5—both of which figures happen to be the highest in this group But in Delaware, in which the percentage is only 26—less than one-half what it is in New York—the death rate is about the same Pennsylvania has proportionately about 40 per cent more people engaged in these occupations than Delaware, but its death-rate is about 21 per cent less In New Jersey it is 40 per cent, and the death-rate 2 3 per thousand

In the New England States the death-rate from consumption only varies from 2 2 in Connecticut to 2 9 in Massachusetts, while the percentage of those engaged in these occupations to all persons of specified occupations, varies from 19 per cent in Vermont to 57 per cent in Rhode Island Here, again, as in the Middle States, the highest figures correspond But Vermont, with its lowest percentage (19), has precisely the same death rate (2 4) as Rhode Island, with its highest percentage (57), while Connecticut, with 47 per cent engaged in these occupations, has the lowest death rate from consumption in New England The death rate in Rhode Island, with 57 per cent, is precisely the same as in Tennessee, with 8 per cent These figures show, if figures can show anything, that if occupation has much to do with the mortality from consumption, it is completely masked by other and perhaps unknown conditions

These remarks do not apply, of course, to certain occupations in which the inhalation of irritating particles or gases might *readily produce conditions pre*disposing to consumption My only object has been to show the general effect of occupation upon the prevalence of the disease as indicated by its mortality

The action of a "cold" in producing a "catarrh," which is followed by phthisis, is not sufficiently prominent in studying this question Those engaged in agricultural pursuits are greatly exposed to the vicissitudes of the weather, and while their out of door life is in itself certainly conducive to a vigorous state of health, it may be seriously asked whether the consequences of repeated exposures may not in great measure offset the ill effect produced by the unsanitary conditions of factory life

In making a statistical study of the various climatic and other conditions found in the United States, in their relation to consumption, the object has been to study the subject on an extensive scale, leaving out minor details almost entirely Not because minor details are unimportant, but because their detailed study is quite incompatible with a gen eral survey. Not only so, but individual localities often present anomalies which set at defiance all known laws of health and disease.

The following facts, which furnish a forcible illustration of the contradictory results obtained by a detailed study of local conditions, are quoted from Dr. Andrews' Lumleian Lectures of the Royal College of Surgeons, of England, last year. In 1866 Mr. G. A. Rowell, of Oxford, published a pamphlet "On the Effects of Elevation and Floods on Health." He was a man of deservedly high local reputation, spent immense labor on his task, and his facts, remarkable as many of them are, are probably trustworthy. Unfortunately their verification is extremely difficult, for he compares single parishes and small districts which it is impossible to pick out of the Registrar General's tables. Here is his account of two villages a few miles from Oxford, up the Thames valley, given with some verbal alterations and omissions of unimportant details.

"Cassington and Wolvercot are both situated on gravel, both have excellent water for drinking purposes, and both are in the same poor-law union, and within two or three miles of each other. Cassington is not situated on a hill, but upon a bed of gravel, which projects into the valley towards the river, but is high and dry above it. The village is fully exposed to the currents of air which sweep through the valley from west to east, having but little protection from trees or other shelter. The roads through the village are wide and well kept, the cottages appear to be much better than in most villages, are well distributed, and although I saw it in wet weather, during a flood season, I thought it one of the cleanest villages in the neighborhood. Wolvercot presents appearances as reverse as possible to those of Cassington. It is protected from the east wind, and Lower Wolvercot is well sheltered by trees on the north and north east. Along the bottom of the rising ground in Upper Wolvercot there is a ditch of stagnant water, and the ground between the lower houses and the canal is liable to flood in winter, presenting at all times the nearest approach to a swamp that I know of in the Oxford valley. In Lower Wolvercot some of the houses are at times flooded, and all of them are but little above high level. There are stagnant ditches around the village and stagnant pools within it, except in dry summer time; even the road through the village, till very recently, was generally impassable for carts in flood seasons, and partially flooded at all times. The cottages certainly are not better than they are at Cassington, while they are much more crowded together. At Wolvercot a great many ducks and geese are bred, and the early broods in cold spring seasons are often kept within doors in the cottages. Thus, in accordance with general opinion, the condition of Wolvercot is much less favorable to health than that of Cassington, but statistics for the twenty years from 1841 to 1860 show that in Cassington the death rate was 27 per cent. higher than in Wolvercot, and the average of life 25 per cent. in favor of the latter village also." The actual figures given by Mr. Rowell are as follows:

Cassington	Annual deaths, 1 in 40.2 persons	Average Age, 25 years, 10 months
Wolvercot	Annual deaths, 1 in 51.3 persons	Average age, 31 years, 7 months

"Allowing for the difference in the population of the two villages, more than double the number of deaths from consumption occurred in Cassington than there were in Wolvercot. Classing that disease with all others of the respiratory organs, the deaths were 70 per cent. in excess in Cassington."

Such anomalies as those presented by Cassington and Wolvercot have been observed again and again by almost every medical man. Single houses, and sections of cities, apparently the most unsanitary, have exceptionally shown an excellent health record for their inhabitants, and *vice versâ*. Because of such anomalous facts as these, the reason for which cannot in the present condition of our knowledge be explained, it seems clear that a general average, even at the expense of slight inaccuracies, is much the safest basis upon which to predicate a general law.

It may now be asked what conclusions can be drawn from the facts presented. These have been for the most part given each in its proper place, and little more is here required than their restatement, which may thus be summarized, viz.: That the mortality from consumption, and we may add its etiology are not esentially dependent upon temperature, altitude, hygrometric conditions, or coast influences. That these factors, singly and in combination, have a considerable influence against or in favor of the development of the disease is probable. But it is generally a matter of doubt how much is due to these and how much to unassignable conditions. While consumption is generally rare in regions with low temperature, it may be equally rare in regions with the highest temperature found in the United States. While it is rare (but by no means always absent) in regions above 4,000 feet high, it may be equally rare in regions less than fifty feet high. While it is generally rare in a dry atmosphere, it may be equally rare in an atmosphere saturated with moisture, *unless associated with a low temperature*. The highest and almost the lowest mortalities are to be found on the Atlantic coast, showing together with other facts, that coast influences, unless masked by unknown conditions, are neither essential for nor against.

These conclusions, which savor strongly of medical agnosticism, seem to be for the most part, in accord with Ruehle, who says: "The investigations of Hirsch have shown that neither the geographical position nor the temperature of a region have any thing to do with the prevalence of consumption. * * While rare in Iceland, the island of Marstrund, Steppes of Kirghis, interior of Egypt, plateaus of Mexico, Costa Rica, and Peru, and in the interior of South Africa, it is common in Sweden, as well as in India, in Siberia, Australia, and South America." He thinks, however, that moist air favors consumption, especially when the temperature is continually high—a view which it is needless to say is diametrically opposed to the facts presented.

It is not intended to underrate the value of the climatic treatment of pulmonary phthisis, but rather to show that neither the immunity from the disease, nor its prevalence can be shown to be uniformly, or even generally associated with any one combination of climatic conditions. We must, indeed, admit that the peculiar climatic conditions which confer a relative immunity are in most cases unknown. So contradictory are the climatic conditions associated with different phthisis mortalities that one may reasonably doubt whether the results are directly due to the climate *per se*. Jaccoud, in answer to the question "Has climate of any kind a curative effect upon tubercle?" says "No, the answer is unreservedly negative. It is therefore useless to inquire which climates have this effect to the fullest extent, since in no case does such influence exist." Nevertheless, there are certain indications to meet in each case. Dr. Herman Weber, in his recent Croonian lectures, *thus summarizes these indications*: "The difference between different cases of phthisis is so great that it is impossible to lay down fixed rules for climatic treatment. In deciding between different climates and localities, the circumstances connected with the etiology, the stage of the disease, the amount of destruction, and the complications with diseases of other organs, are important, but still more so the distinction between a weak and a strong constitution, an excitable or a torpid nature—between progressive and retrogressive active or stationary cases. Mental peculiarities ought not to be overlooked, nor the habits of the invalid and the circumstances in which he has lived." But whether the reasons are in all cases apparent or not, we may continue to benefit our patients by sending them to regions where consumption is rare, and where experience has shown that certain classes of cases are benefited.

The *causa sine qua non* of consumption is of course outside the scope of this paper. It may not be out of place to remark, however, that the total lack of all essential relation to climatic conditions, so clearly shown, is a strong, though perhaps superfluous negative argument in favor of its specific origin. The parasitic nature of the disease, to which tradition and clinical history so long pointed with prophetic finger, has at last been conclusively demonstrated. The pathogenetic relation of Koch's tubercle bacillus is established. Around this great central fact all etiological, pathological, diagnostic, clinical, and therapeutical theories will hereafter rotate. The broad facts of its geographical distribution, so often apparently meaningless and contradictory, will ultimately find in the sequelæ of this discovery as complete a solution as they are capable of receiving. It will then be found that those climatic conditions which confer a relative immunity are just such as will, by invigorating the system, raise the tissues to the highest degree of what has been called their "bactericidal power." Preventive medicine, in dealing with phthisis, will have to look for the solution of its problems in the direction of germicidal agents and conditions. In short, the whole literature of phthisis will have to be, and even now is being reconstructed in the light of this great discovery.

THE TREATMENT OF PULMONARY DISEASES BY MEANS OF "PNEUMATIC DIFFERENTIATION"[1]

BY VINCENT Y. BOWDITCH,

OF BOSTON.

It is my purpose to speak of a new method of treatment for pulmonary disease, which was brought to my notice not long since in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, February 14, 1885, in which the writer referred to an article in the *New York Medical Record* of January 17, 1885, by Dr. Herbert F. Williams, of Brooklyn, New York, who speaks of the "Antiseptic Treatment of Pulmonary Diseases by means of Pneumatic Differentiation," and records with their results a series of cases which have undergone this method of treatment.

I speak of it as a new method, because I believe it to be a step forward in the treatment of one of the most formidable diseases with which we have to contend, and whatever may be the results of future investigations, I deem it worthy of the careful consideration of all members of the regular profession, and if the results are not what we have been led to hope for, we can, at least, say that no harm has been done by our endeavor to find a new weapon against a terrible disease.

The treatment of pulmonary diseases by the inhalation of compressed and rarefied air has been for several years used by well known scientific men with apparent success in many cases in Europe, especially in Germany, and to a much greater extent than in our own country, where I think I am right in saying that comparatively little attention has been paid to either method by members of the regular profession. Various irregular practitioners have used inventions of their own, having more or less similarity to each other, for the disease in question, but whether from the fact that such people usually keep their inventions to themselves, or because they have been proved to be utterly worthless, no marked movement toward a general adoption of such therapeutic measures has been made.

It has been my good fortune in studying the subject to come across the methods of treatment of one or two irregular practitioners, which at first seemed to resemble closely that adopted by Dr. Williams, but which upon closer examination were found to differ in essential points. Of these methods I shall speak more fully later.

The treatment of pulmonary diseases by means of compressed and rarefied air, as used in Europe, is meant chiefly to accomplish the same result as removal to some different section of the country where the air has the requisite degree of density or rarefaction for the treatment of the disease in question. To obtain this, air-tight compartments are constructed, in which the patient sits for a given time, and the air is then partially exhausted or compressed, according to the needs of the case, which treatment is continued for a certain number of hours in the day for several weeks, or possibly months, and the results seem to justify the fact that these methods are in constant use in Europe[1] Various portable instruments have been devised by different scientific men for inhalation of compressed air, and *vice versa*, the best known being the apparatus of Waldenburg, of Tobeld, of Schnitzler, or of Geigel and Meyer, also another of J Solis Cohen,[2] of Philadelphia, all being modifications of the same idea, illustrations of which I shall show you to night, as seen in books upon the subject It will be noticed that in the use of these last-mentioned instruments the surface of the body is exposed to the ordinary atmospheric pressure, whereas in the case of the pneumatic chambers the atmospheric pressure upon the body and in the lungs is increased or diminished according as the air in the cabinet is compressed or rarefied

---

[1] Read before the Section for Clinical Medicine Pathology and Hygiene of the Suffolk District Medical Society May 13 1885.

Still another method has been invented by Hauke, called by him the "Warme," or tub, spoken of in Ziemssen's "Handbuch der allgemeinen Therapie," but as far as I can discover, the apparatus has not been universally used In following out this method, a rubber hood, closely fitting about the head and leaving the face only exposed, comes down over the shoulders like a shirt The patient is then made to lie down in the "Warme," which in shape resembles a tub, having a close-fitting rubber cover which encircles the neck of the patient, and the hood is then fastened to the edge of the cover by means of an elastic band The air is then partially exhausted from the interior of the 'Warme, which decreases the atmospheric pressure over the surface of the body, with the exception of the face Upon inspiration the increased pressure of the outside atmosphere materially tends to expand the lungs from within, and the inspiratory act is greatly facilitated, whereas the expiratory act is proportionately increased, and a calisthenic action of the lungs and chest walls is thereby obtained to a greater degree than by the ordinary respiratory movements

A similar method to this was adopted by an irregular practitioner, entitled "The Hadfield Body Receiver for the New Haven Vacuum Cure," used, I have been informed, in 1869, a sketch of which I have with me

I have mentioned quite superficially the various methods used by the regular profession in so called pneumatic therapeutics, so far as I have been able to learn of them, that you may be able to understand the general principles of their use, and before speaking of Dr Williams's cabinet it is only necessary to mention the various methods of inhalation familiar to us all, used all over the world in the treatment of pulmonary diseases, for example, inhalations of atomized sprays of different substances, of the use of rooms filled with medicated vapors, etc , all of them seeming to have met with more or less success, but too numerous to do more than mention here as they bear upon Dr Williams's method of treatment

In March, feeling much interested in what I had read of the Pneumatic Cabinet, I went to Brooklyn and was there enabled, through the courtesy of Dr Williams, to study the apparatus thoroughly, and to examine three or four of his cases which had derived marked benefit from the use of the so called differentiator The cabinet is made of iron, and resembles a large iron safe in general shape, in one end of which is a large, thick glass window It is between six and seven feet high, about three feet wide, and from three and one-half to four feet long, in short, large enough for a man or woman to stand up or sit down in comfortably Opposite the window is a heavy iron door edged with rubber and furnished with heavy bolts, all moved easily by one handle, so that the door can be instantly opened Beneath the window is a projection in the side of the cabinet to accomodate the patient's knees when sitting with the face near the window, the same projection serving on the outside as a shelf upon which the atomizer used with the apparatus is placed Passing through the glass window is fixed a short gutta-percha tube about one and one-half inches in diameter, having a stop cock on the outside, and ending in a trumpet-shaped opening for receiving the spray, the inner end being fitted with a movable rubber tube and mouth-piece for the patient's use Near the cabinet stands a cylindrical iron vessel, from which the air is as nearly as possible exhausted, communicating with the interior of the cabinet by means of a pipe and stop cock A barometer, connected with the inside of the cabinet to show the amount of rarefaction of air in the interior, is fastened to the outside of the cabinet

The patient enters the apparatus, seats himself opposite the window, the door is closed and the stop cock of the pipe connected with the vacuum is opened The air from the cabinet rushes to the vacuum, and when the barometer shows a depression of two tenths of an inch the stop cock is again closed A spray, usually of carbolic acid, iodine, iodoform, or bichloride of mercury, either singly or in combination with each other, is then put in front of the inhaling pipe, the patient is directed to insert the end of the tube in his mouth, closing the lips over the mouthpiece, at the same time compressing the nostrils with his fingers to prevent the air rushing out through his nose, the stop-cock is turned and the outside air rushes in, carrying with it the medicated spray and causing a more forcible involuntary inspiration, giving one the sensation of having taken an unusally full, deep inspiration, the patient then, by a voluntary forced expiration, exhales through the tube again, and continues these respiratory movements several times Upon the least feeling of fatigue the stop-cock is turned and the patient, after removing the tube from his mouth, breathes the rarefied air of the cabinet again until ready for a second trial The time occupied in this treatment varies from ten to thirty minutes, and usually daily applications are made, the greatest number given, according to Dr Williams's pamphlet, being one hundred and thirty-five The amount of rarefaction used in the beginning is never more than what would cause one tenth or two tenths of an inch depression of the mercury, but during the treatment a gradual increase of rarefaction may be used, up to an amount causing a one inch depression of the mercury, although in many cases, doubtless, even a greater degree of rarefaction could be used with benefit and without evil results

---

[1] Compartments of this nature exist in Lyons Montpelier Nice Stockholm London and St Petersburg also in several places in Germany but I am not aware that any similar chambers are constructed in this country They are expensive and need the care of experienced persons in the regulation of the various devices used in connection with them and it is probably for this reason that they are not more universally used

[2] Solis Cohen s article in New York Medical Journal for October 18 1884 entitled Compressed and Rarefied Air as a Substitute for Change of Climate

The only peculiar sensation which may be noticed in the beginning of the treatment is a slight crackling in the ears, as the air is being exhausted from the cabinet, but if the patient be told to swallow two or three times, this symptom will entirely disappear

It will be seen, I think, from the foregoing description of the apparatus that what it accomplishes is twofold in its nature, namely it produces a much greater expansion of the lungs than is possible by an ordinary full inspiration, and, at the same time, the medicated spray being carried with much greater force than by a natural inspiration is deposited in the deeper portions of the lungs in a much more thorough manner than by any other method that I know of, as has been proved satisfactorily by Dr Williams in a series of experiments referred to in his pamphlet

As to the principle of his cabinet, it will be noticed that it resembles in theory the "Warme," or tub, of Hauke, before mentioned, in which atmospheric pressure on the surface of the body is lessened, the face only being exposed to the outside air, but the simplicity of Dr Williams's method, by which the patient is enabled to undergo the process without the discomfort of putting on extra coverings, as in Hauke's plan, will strike every one, to say nothing of the greater thoroughness with which the purpose is accomplished The chief merit of his cabinet lies, however, in the fact of the *combination* of the medicated spray with which the increased strength of the inspiratory movements For full accounts of his cases which have undergone this treatment I must refer you to his pamphlet, merely remarking that the percentage of cases which have improved is most gratifyingly large and that it must be left to the future to determine whether others meet with equally happy results I wish to speak, however, of three patients whom Dr Williams kindly let me examine [Cases I, II, and IV, were read from Dr Williams's pamphlet]

Upon examination of case 2 of Dr Williams's pamphlet, I found him to be a young man of rather delicate build, but otherwise looking well, and to all outward appearances in good health Percussion of the right chest showed slight dulness in that region, and upon auscultation a faint crumple was heard, and the respiratory murmur was harsh, but the gurgling sound and the amphoric quality spoken of at the first examination I did not get The young man spoke of himself as feeling all right, but upon closely questioning him I found that he had a slight cough upon arising in the morning Of the evident marked improvement from his previous condition as described, no one would doubt, he had been able to resume his work a year previous

CASE 1 (a young lady), when I saw her, looked rather pale and anæmic, but her mother spoke to me especially of the condition in which her daughter was before beginning the treatment, and of her belief that she was well Examination of right chest showed dulness and crumpling with inspiration,—a marked difference from the signs noticed before,—and the patient was able to do, as far as I could learn, every thing that the other members of the family were accustomed to

CASE 4, which was complicated with empyema, looked perfectly well, showing a slight fistula in the left chest Upon examination, all the signs of a former empyema on the left side were present Dr Williams also spoke of the presence of a slight crumple, heard at one time under the right clavicle in the course of the disease, but after the continued use of the cabinet it disappeared, and when I examined him the inspiration was absolutely pure at that point

In regard to the first two cases it should be said that Dr Williams does not wish to claim that they are insured against a return of the trouble on the contrary he thinks that they both will eventually die of phthisis, but he does claim the greatest improvement and an arrest of the disease, and, as far as outward appearances are concerned, a return to health He hopes for the greatest benefit to arise in those cases of incipient phthisis where there seems to be nothing more than a catarrhal condition of the lung, and his one desire is that his method of practice shall be given a fair trial by members of the regular profession everywhere In those cases, moreover, of a slowly expanding lung after pleuritic effusion, the mere mechanical treatment of the cabinet can be of great assistance in promoting expansion

In every collection of cases of this sort, it is only right that we should carefully weigh every evidence for and against the justice of the conclusions drawn In the cases enumerated in Dr Williams's pamphlet we must think of the moral effect of the new method upon the patient No doctor is unaware of the marvelous influence which the mind has over the body, and of the marked improvement which often takes place in the general condition of a patient upon trying a new physician or a new method of treatment We must think, moreover, of the possibility of the enthusiasm of the inventor blinding his eyes to certain facts which must be considered, while wishing at the same time to be perfectly fair and unbiased in his statements, we must also not be too greatly influenced by the delight of friends and relatives, who, seeing a marked improvement in one dear to them, exaggerate to themselves the signs of a return to health Nevertheless, with a collection of cases such as Dr Williams gives us in his pamphlet, it becomes the duty of responsible physicians throughout the country to investigate the subject thoroughly in a spirit of perfect fairness and without prejudice, and to let the future decide whether others meet with equally successful results

It has been my desire since seeing Dr Williams's cabinet to find if any similar method of practice has been used before, and my attention was called to a cabinet used by a practitioner not of the regular profession in this city In a pamphlet issued by him, a woodcut of his cabinet was shown which seemed to resemble almost precisely in principle that of Dr Williams, and the description of its use as expressed in the pamphlet led me at first to believe that they were identical, with the exception that no attempt was made to use a spray in connection with the cabinet I visited the gentleman and was received with courtesy, and the principles of the cabinet were explained to me The description of the apparatus in the pamphlet speaks of the air being partly exhausted about the patient at his will Upon questioning the gentleman more closely, however, I found that the breathing tube and stop cock on the inside of the cabinet were not used at all in the same manner as in Dr Williams's apparatus, and I cannot do better than quote the gentleman's words as nearly as possible "I exhaust the air in the cabinet to an amount causing a pressure on the outside of the cabinet of of about three to five pounds to the square inch (an equivalent of a depression of six to ten inches of the mercury), and direct the patient if he become nervous to open the stop cock *very slightly*, so that the outside air may enter enough to reassure him, and then let him sit in the rarefied air for a certain length of time, and at the end of the sitting make him take one or two deep inspirations to expand his lungs, opening the stop-cock a little at the same time, the end being in the mouth" From this description it will be seen that his method resembles more those previously spoken of, in which the patient merely sits in a rarefied atmosphere for a given time No attempt is made to breathe in and out, as in Dr Williams's cabinet, indeed, this would be impossible with the great amount of rarefaction used, for the force of air rushing in through the wide open stop-cock would severely injure the patient, moreover, as I said before, no attempt is made to combine the spray with his apparatus So it will be seen how essentially the two methods differ at the outset, to say nothing of the fact that while in the one case we are dealing with a scientifically educated physician, in the other we come in contact with one who professes to "diagnosticate his case by his eye", who "never auscults nor percusses his patients nowadays," and who "draws the corruption out through the skin," etc, etc

I have endeavored to give the important facts relating to Dr Williams's apparatus, and to show how it differs from other methods of treatment as far as I have been able to learn of them by reading or by personal observation My object will be accomplished if the paper shall excite discussion, and I trust if there is any one present who knows of methods of treatment resembling those of which I have spoken, he will speak of them to the Society this evening

REFERENCES

Journal of the American Medical Association for February 14 1885 Editorial on Dr Williams's article

New York Medical Record for January 17 1885 Antiseptic Treatment of Pulmonary Diseases by Means of Pneumatic Differentiation By Herbert E Williams M D Brooklyn N Y

Ziemssen's Handbuch der allgemeinen Therapie' I Band IV Theil Edited by Oertel 1882

Hassall's Inhalation Treatment of Organs of Respiration Including Consumption' London 1885

New York Medical Journal for October 18 1884 'Compressed and Rarefied Air as a Substitute for Change of Climate' J Solis Cohen Philadelphia

MEDICAL PROGRESS

OBSTETRICS AND GYNÆCOLOGY

Operation for the Cure of Sterility in Cases of Conical Cervix with Flexion of the Cervix —Dr Graily Hewitt, in describing this operation, says One of the rather common causes of sterility in women is the presence of what is termed "conical" cervix This term expresses, however, only imperfectly the real explanation of the difficulty More generally the vaginal portion of the cervix is elongated, as well as conical, and the whole of the cervical canal is also, in the majority of cases, much curved These are the cases *par excellence* which have been termed by Emmet "flexion of the cervix" In such cases, the uterus appears to have gone through a series of changes subsequently to arrival at puberty, namely, (1) imperfect nutrition, (2) softness and want of tone, (3) gradual acquirement of anteflexed shape, mainly as a consequence of the imperfect nutrition and softness of the uterus, and (4) a further and exaggerated condition of flexion of the cervix of the uterus Resting on the floor of the vagina, the vaginal part of the cervix becomes, as it were, doubled up, so that the os uteri looks upwards and forwards The condition of the uterus thus associated with conical cervix constitutes one very difficult to deal with, especially if, as sometimes happens, the uterus, as a whole, be tilted backwards, constituting retroversion, conjoined with extreme anteflexion

Thus, the vaginal cervix is not only too long, but it is sharply curved, and the combination appears to be a great obstacle to conception

Two principal methods have been heretofore recommended, namely, (1) amputation of a portion of the cervix, and (2) opening out the cavity of the cervix by a median incision through its posterior wall, as recommended by Emmet and Sims Another method of treatment would be the use of an intra-uterine stem

A short time since, a patient, with a very decidedly curved and elongated cervix, was sent to me The patient was very anxious to have a family, and suffered much from disturbance of micturition, and difficulty and pain in walking, due to the anteflexed uterus She had been married four years She was treated by means of a cradle pessary, modified to suit the case, with success as regards general comfort, but the sterility remained Last year, I performed an operation on this patient, which I now describe, and which seems to me worthy of further trial in such cases My object was to straighten, as well as shorten, the cervical canal as regards its vaginal portion

Having drawn down the cervix, I removed from its posterior aspect, in the median line, a portion of mucous membrane, nearly an inch in length vertically and half an inch wide, and, having done this, stitched the upper and lower margins together, the effect of the procedure being to shorten the vaginal cervix on its posterior aspect, to draw the os uteri backwards, and thus straighten the vaginal cervix and increase its patency When the stitches, three in number, were tightened, the vaginal cervix was made to look downwards, instead of upwards The sutures were removed after a few days The operation was done at the beginning of the year 1884, and the patient informed me recently that she expected her confinement in the beginning of May

I consider the above a better procedure than amputation of the vaginal portion, because it leaves the os uteri in a natural state, and I think it preferable to Emmet's operation, because it leaves the cervical canal intact The uterus, as a whole, is less mutilated by this procedure, and presumably, its functions may be supposed to be better exercised when the cervical canal and the os uteri externum are preserved It may be remarked that the use of the stem is less likely to be attended with benefit in these particular cases, for the vaginal portion is too long, and something must be done to shorten it, although the use of a stem might be useful, in order to further improve the patency of the cervical canal, after the vaginal portion has been shortened by the procedure above described In the case related, however, the operation alone appeared to produce satisfactory results —*British Medical Journal*, June 13, 1885

SURGERY

EXCISION OF THE RECTUM FOR EPITHELIOMA — DR GEORGE ELDER reports, in the *Medical Chronicle*, for June, 1885, the case of a woman, æt 44 years, with a good record of family and personal health, who for nearly a year before her admission into hospital, Nov 29th, 1884, had been losing flesh and condition, but at first the local symptoms were so slight that they were attributed to a passing attack of piles As time wore on, the bleeding, which had been only slight and occasional, became more profuse, and occurred with every movement of the bowels There were also distressing fits of rectal tenesmus and colicky pains, and the motions, which for months had not been natural in size or form, finally were small, unformed, and forced by the habitual use of purgatives There was a constant oozing of bloody slime, but except at defecation, when pain and straining were severe, there was but little uneasiness On digital examination, about three inches up the bowel, and on its anterior surface a friable, mushroom shaped growth, with a broad attachment, could easily be felt The free mucous membrane above it was beyond the reach of the finger

On Dec 9th, with patient under the influence of ether, a semicircular incision was made around the upper and lateral margins of the anus, and the necessary dissection completed, partly by the knife but mainly by scissors Only two arteries required ligation To expedite matters, after the bowel had been partially freed it was cut away, so that traction could be the more easily applied, by means of vulsellum forceps, to the remaining portion When sufficient had been separated an ecraseur wire was applied well beyond the growth, and this completed the operation In all, rather more than three inches of the anterior two-thirds of bowel were removed On Jan 10th the wound had fairly healed, and a good sized formed motion was passed, causing her pain if she strained On Feb 6th the patient said she had perfect continence of fæces, and passed daily, without the use of aperients, a formed motion

Microscopic examination of the growth showed it to be a cylindrical-celled epithelioma

LOCALIZATION OF THE ANO-VESICAL CENTRE — KIRCHHOFF *(Archiv fur Psychiatrie und Nervenkrankheiten*, Band XV, p 607, 1885), describes a case of fracture of the first lumbar vertebræ in a man, aged 30 years, who had fallen from a horse on the nates Immediately after the accident the patient was paralyzed in the lower extremities, and had to keep his bed for a quarter of a year During this time he suffered from pains in the legs and vertebral column, while the urine had to be withdrawn for the first three weeks by the catheter, but afterwards there was incontinence, and the urine, which was at first clear, became turbid and fœtid In addition, there was an involuntary discharge of fæces The condition of the patient improved under treatment, and he was again able to walk, but the paralysis of the sphincters remained The accompanying cystitis was also improved by treatment, but it always recurred, and ultimately it became complicated by a pyelo nephritis with the usual elevation of temperature, and the patient died nineteen months after the accident At the autopsy, the portion of the vertebral column consisting of the eleventh and twelfth dorsal and first three lumbar vertebræ was removed and sawn longitudinally It was then seen that the first lumbar vertebra was compressed into the form of a wedge, with the point directed forwards, while the base, which scarcely measured two cm in vertical extent, was directed backwards, and displaced so that it encroached to the extent of one cm upon the vertebral canal The whole of the spinal cord in the portion of the vertebral column removed was small and atrophied, while opposite the first lumbar vertebræ it was flattened and pushed to one side The atrophy had reached its highest degree at the conus medullaris, especially on the right side and on a level with the origin of the second, third and fourth sacral nerves

Transverse sections at these levels showed that on the right half of the cord the white columns were much atrophied, and that the ganglion cells had disappeared from the anterior cornu The nerve roots themselves were intact The author argues from this case that the ano-vesical centre is situated on a level with the third and fourth sacral nerves, the portion of the cord which was the chief seat of the lesion, a locality which almost corresponds with the sacral nuclei of Stilling —*Medical Chronicle*, June, 1885

EXCISION OF BOTH BREASTS AT THE SAME TIME — MR JONATHAN HUTCHINSON closes a paper on this subject as follows If it be asked whether, in cases of double disease, it is better to remove the two breasts by a single or by separate operations, I would venture, without hesitation, to recommend a single one, as probably involving both less risk and less inconvenience to the patient —*Brit Med Jour*, June 13

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE
PER ANNUM IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, AUGUST 1, 1885

THE INTERNATIONAL MEDICAL CONGRESS AND ITS ENEMIES

The further the few members of the profession, in three or four cities, who made the mistake of supposing they constituted the embodiment of the medical profession in the United States go, in trying to justify their deliberate attempt to obstruct the necessary preparations for a proper organization of the Congress, the more they involve themselves in gross inconsistencies and misrepresentations Under the head of "Why the New Organization of the Congress should be repudiated," the Editor of the *Medical News* attempts to give the reasons why the action of the Committee of Arrangements at its meeting in Chicago should be rejected

The editorial mentioned (see the *Medical News*, July 25, 1885, p 96) contains five paragraphs, each of which contains one or more misrepresentations of fact, although the *reasons* given are only two, and are stated in the first paragraph as consisting in part of a "disapproval of the rules adopted by its managers, and in part of the fact that these managers are not men who should be endorsed to the world as the leaders of the medical profession of the United States" It is worthy of note, that these two are the *only reasons* that have been given in any quarter for all the bluster and bravado of opposition thus far exhibited And it would be a sufficient answer to both, to say, as we have said substantially before, that there is *no* "New Organization" of the Congress in existence Before the work done by the Committee of Arrangements in Chicago could be completed or made ready for publication, the preconcerted game of bluff was commenced, and a most industrious effort made to propagate the *strike* throughout the country Yet after the lapse of a full month the whole number of those whose names have been announced as having refused to accept any position in the Congress under what they are pleased to call the "New Organization," is only about ninety, of the nearly five hundred embraced in the proposed organization, and certainly only an infinitesmal fraction of the 40,000 members of the profession embraced in the American Medical Association and the several State and local societies in affiliation with it

By "managers" the objectors must mean the members of the Committee of Arrangements consisting of one from each State, and selected by the delegation of each State present at the meeting in New Orleans This body of representative men, selected *not by the presiding officer of the Association, nor by* a committee that might possibly have been packed for the purpose, but by the representatives from each State acting by themselves and for the profession of their State, are sneeringly spoken of as "not men who should be endorsed," etc It is well known that nearly all this sneering is really aimed at the member of the Committee representing the State of Pennsylvania, though the *News* has not the manliness to say so But Pennsylvania was represented at the meeting of the Association in New Orleans by thirty two delegates and permanent members, who alone are responsible for the selection of the proper man to represent the State on the Committee of Arrangements In selecting Dr John V Shoemaker they certainly secured an active, industrious, and efficient representative on the Committee He had done good service as Chairman of the Section of Practice of Medicine, Materia Medica and Physiology at the meeting of the Association in Washington the year previous, and we suspect that the head and front of his offending consists in the fact that he has had sufficient courage, industry, and talent to push his way to position and influence in the profession without going through the hereditary ruts and mutual admiration circles, for which a part of the profession in the quaker city is noted

Again says the editorial in the *Medical News* "It is true that the New Orleans meeting by no means represented the Association, and was *specially packed* with delegates from two or three neighboring States, whose chief purpose in being present appeared to be to obtain control of the Congress," etc It is a pity that the writer of that sentence had not examined a few figures before he ventured to record so manifest a misrepresentation At the meeting in New Orleans there were present representatives from thirty-four

States, two Territories, the Medical Corps of the Army, Navy, and Marine Hospital Service The only States not represented were Connecticut, Delaware, New Mexico, and Oregon The whole number of members present was 635 The five States most contiguous to the place of meeting, and from which the Association is represented as having been *specially packed* with delegates, are Texas, Arkansas, Louisiana, Mississippi and Alabama, the first had 69 members present, the second 36, the third 49, the fourth 16, and the fifth 13, making an aggregate membership present of 183, to outvote a total of 635 They aggregated, indeed, twelve less than the five States of Pennsylvania with its 32 members present, Ohio with 37, Indiana 37, Illinois 55, and Iowa 34, making an aggregate of 195 The truth is, there has never been a meeting of the Association held, at which there was not a greater relative proportion of the membership present from the States contiguous to the place of meeting than in New Orleans At that meeting the largest number of members present from any one State contiguous to the place of meeting was 69 from Texas, which was only about one-tenth of the whole number present, while at the preceding meeting in Washington in 1884, Pennsylvania alone had 213 members present, or more than one-sixth of the number, and at the meeting in Cleveland, Ohio, in 1883, the numbers present from the two most contiguous States, Ohio and Pennsylvania, numbered 302, or nearly one third of the whole number in attendance In the light of these statistical facts, the pretense that the meeting in New Orleans either did not represent the Association, or was "specially packed with delegates from two or three neighboring States," becomes too absurd to be entertained by any intelligent member of the profession

But the editorial writer in the *News* reaches the climax of his recklessness and folly when he adds, in the same paragraph from which we have quoted, that the action of the Association at New Orleans was "the work of a comparatively small faction intensely desirous of office" When it is remembered that among the most prominent acts of the first Committee on the Organization of the Congress, in whose behalf the *News* is so clamorous, was the parcelling out of the chief offices of the Congress to themselves until not one of their number was left without an official position in the Congress, and some of them had three or four such positions, while the new Committee, composed of men whom the *News* calls a faction "intensely desirous of office," have appointed not one of their number to a general office in the Congress, but have with a just sense of propriety limited themselves strictly to the work of a Committee of Arrangements, the reckless and desperate straits of those selfish leaders who are vainly endeavoring to maintain the little game of bluff by which they hoped to successfully obstruct the proper preparation for the Congress, become painfully apparent to the most superficial observer

Before going further in this work of misrepresentation and purely factious opposition, we commend to their careful study the letter on a subsequent page of this number of the JOURNAL, headed "Data for the History of the Ninth International Medical Congress," which is from the pen of one of the most eminent and most widely known members of the profession in America As therein stated, the Ninth International Medical Congress will be held according to apppointment The Association by which it was invited will see that it is officered in all its departments by as eminent and honorable men as exist in the medical profession of our country And if the obstructionists desire to have any part in the good work, they will lose no time in converting their opposition into an honest cooperation in enabling the Committee of Arrangements at its special meeting, on the third of September, to complete its work of organization in a satisfactory manner

THE FRENCH COMMISSION AND DR FERRAN

In the editorial columns of the JOURNAL of July 25, we spoke of the almost necessarily futile results of vaccination against cholera, and in the miscellaneous department of the same issue of the JOURNAL we gave an abstract of a letter from an American physician to the *Chicago Tribune* *Le Progres Medicale*, of July 11, contains an abstract of the report of MM Brouardel, Charrin and Albarran, the Commission sent by the Académie de Médicine to Spain to investigate the alleged discoveries of Dr Ferran This report is of two fold interest, as showing the depth to which a member of an honored and honorable profession can sink himself in charlatanry and quackery of the worst form, and also as pointing a moral for those who have entered, and those who propose entering, the fields of scientific research

We cannot give so much space to this article as does the paper from which we take the following summary This Dr Ferran absolutely refused to give any information as to his methods, or to give a specimen of his culture fluid to the Commission, to allow them to work in his "laboratory," or to allow them to see him work The room which he dignified with the name "laboratory" contained, besides an engineer, a "lawyer" and an accoucheur, two micro scopes, neither of which were of greater power than seven or eight hundred diameters (and for all practical purposes in studying micro biology one might almost as well use a pocket-lens), a very primitive stove, without a regulator, no materials for coloring or staining, for which it seems this unblushing quack has no need, some gas burners, and a few quarts of bouillon. Such, says the Commission, was the scientific outfit of Dr. Ferran. This inventory would be alone sufficient to convince any biologist or scientific man that there was something wrong. No one can blame a man for being too poor to buy apparatus—and had Dr. Ferran convinced any scientific man in Europe that he was doing good and honest work, and that he had not the means for obtaining apparatus, we are certain that he would not have been long without them.

Having given some idea of his apparatus, and especially his microscopes, it is obviously unnecessary to quote his assertions regarding the various evolutions of oogones, oospheres, spores, etc. A man with an obedient and hypertrophied imagination, and an inferior microscope, can always see what he wishes to find, and these taken in connection with dishonesty and a desire for notoriety and gain, go far towards supplying a deficiency of apparatus. Dr. Ferran, seemingly to avoid an inquisitive committee, had not preserved preparations or specimens of the comma bacillus in its stages of evolution. The whole report of the French Commission may be summed up in the very significant words: tout ce que nous avons pas voir nous-mêmes n'etait pas nouveau, et tout ce qui etait nouveau nous ne l'avons pas vu. To every appeal and question as to his methods Dr. Ferran replied that his secret was for sale; he wished to be assured of the Bréant prize of 100,000 francs.

It would seem but waste of time for anyone to go to further trouble to investigate this gigantic fraud. If Ferran thirsted for fame, he may be certain that he has attained that kind which is known as notoriety. His example should be a warning for all time to those who would gain reputation or wealth by dishonest work. Of the results of the inoculations it need only be said that the French Commission declares and proves that the statistics are false and wholly unreliable.

A RETROSPECTIVE VIEW OF GENERAL GRANT'S CASE.

The medical history of General Grant's case has not yet been fully reported, but on account of the high position of the patient, the general interest in his case and the publicity given to every movement, we may say, of either the patient or the physicians and the amount of professional and lay criticism, just, unjust and silly, it seems quite proper to give what we may call a *post mortem* opinion of the case.

In some respects there is a certain similarity between this case and that of the late President Garfield, and so far as we remember just now, it is the third case in which public interest in the patient was so great that it was necessary to issue bulletins to the public newspapers, the first case being that of the Prince of Wales, when sick with typhoid fever at Sandringham, some years ago. In the case of the Prince of Wales the diagnosis was exact, but the outcome necessarily uncertain; in the case of President Garfield the exact nature of the injury was not known, and the termination uncertain until the autopsy showed that it could not have been otherwise. In the case of General Grant the diagnosis was exact, and the termination but too certain.

It will be remembered that the eminent surgeons in charge of President Garfield's case were criticized by the public, who knew nothing of the case, and by many medical men who should have known better,—but did not. To say nothing of certain nameless critics in America, so eminent a man and surgeon as Professor Esmarch blundered through several pages only to show how much better it would have been had he said nothing. And within two weeks a kinsman of President Garfield has exhibited a spleen and an amount of silliness which is quite surprising, by asserting that the surgeons and not the bullet killed the late President. In a former editorial we took occasion to speak of the worse than puerile criticisms of certain newspapers concerning the manner in which General Grant's case was being conducted. Those who wrote those criticisms possibly see now how absurd and out-of-place were their ridiculous comments. But more unjust, if possible, than the criticisms of the newspapers, were the unprofessional animadversions of a few medical journals, which stigmatized the bulletins of Gen. Grant's physicians as "advertising dodges." The mere fact of being a consulting or attending physician in that case was a sufficient advertisement, and the bulletins issued were courtesies extended to a sympathetic public.

In conclusion it should be said that there is nothing in the history of the case to show that the physicians were at any time mistaken as to diagnosis or prognosis—nor is there any reason for believing that the treatment should have been different from that which was faithfully and patiently carried out. What might have been the result had the case been taken in hand at an earlier date can only be conjectured, but it is likely that death could, for a time at least, have been averted had the case been treated surgically nine or twelve months ago At any rate, it is a warning against delay in seeking medical advice, especially in cases of tumor, and more especially in cases of tumors of the mouth

"SHOULD PROPRIETARY MEDICINES BE REQUIRED TO GIVE AN ACCOUNT OF CONTENTS?"

Such is the title of a paper read before the *Michigan State Medical Society*, at its late annual meeting, by PROFESSOR ALBERT B PRESCOTT, of Ann Arbor Putting the question in a more proper form, "Should *Manufacturers* of Proprietary Medicines be required to publish the Constituents of these Preparations?" it is one which would probably be answered affirmatively by every physician and every person interested in public health

In some countries, as France, the State acts on the principle that it is the guardian of the adult individual, so far as health is concerned, but in the United States the individual is generally presumed to be capable of judging for himself in these matters—and whether this is more of a presumption or an assumption it is difficult to say Few things are more apparent than the dense ignorance of the masses as to the most common-sense principles of health and treatment of sickness This is apparent even in the higher walks of life, among educated and cultivated people (such as editors of daily newspapers) Professor Prescott very justly says that as the State, in this country, does not assume such charge of the individual as in some other countries there is all the more reason that he should be protected in the matter of buying proprietary medicines should "be protected in the exercise of his greater liberty in the selection of remedies, protected against the mistakes of the careless and against the deceptions of the dishonest If the State so far respects the right of private choice that no medicine requires a legal sanction for sale, so much the more must the State place safeguard against fraudulent imposition upon private choice, and provide favorable opportunity for its more careful exercise In this protection of the individual, it has long been required that a 'poison-label,' with the name of the article liable to act as a poison, shall be placed upon every package of powerful medicine that is dispensed without a physician's record"

At the meeting of the Michigan State Medical Society at which this paper was read, the Committee on State Sanitation was instructed to present "a draft of a bill for a State law requiring proprietary medicines to carry a statement of their *constituents*", and we hope that the Committee will change the letter of their instructions so that the bill will be directed against the manufacturers and not the medicines And to render the law operative, and to prevent fraud, the State Analyst should be instructed to make analyses of all proprietary medicines, bought in open market, at such times as he may think proper or the Board of Health may direct Furthermore, the bill should provide that the names given to the constituents of the proprietary articles shall be such as may be found in dispensatories or pharmacopœias

Just how much good such a law would do it is impossible to estimate There can scarcely be a doubt that, if enforced, it would do some good, it might possibly mitigate the nostrum evil to some extent But what is needed in this country is a law forbidding the manufacture or sale of any proprietary medicine until a competent body of medical men (such as the National Board of Health, or a Committee from the Army or Navy Medical Department) has subjected it to chemical analysis and therapeutic trial, forbidding the advertisement of it as a cure or specific for other affections or diseases than those specified by the acting body, and requiring that the formula be published on each bottle or package

SOCIETY PROCEEDINGS

THE AMERICAN OPHTHALMOLOGICAL SOCIETY

21st Annual Session, held at the Pequot House, New London, Conn, July 15 and 16, 1885

THE PRESIDENT, WILLIAM F NORRIS, M D, OF PHILADELPHIA, IN THE CHAIR

WEDNESDAY, JULY 15, FIRST DAY

DR C R AGNEW, OF NEW YORK, read a paper entitled

OPERATION FOR REMOVAL OF DISLOCATED CRYSTALINE LENS

The patient had been blind as long as he could recollect The iris was tremulous, the lens was opaque and very movable The eye had been painful for some time and recently the other eye had also attracted attention The vision in this eye was $^{0}/_{1}$

The operation for the removal was as follows The patient was etherized and cocaine was applied The eye was secured with fixation forceps An instrument resembling a two pronged fork, termed a *bident* was introduced into the vitreous chamber behind the dislocated lens, pressing it forward The bident transfixed the eye and held the lens in posi tion Section was then made in the ordinary manner and the lens removed The eye was dressed with absorbent cotton and a black silk bandage Antiseptic solutions were used and a four-per cent solution of cocaine was applied twice a day The eye recovered without any unpleasant symptoms The ophthalmoscope revealed atrophy of the choroid and retina The speaker did not claim that all dislocated lenses should be removed, but this instrument facilitated the operation when it was required

Dr David Webster, of New York, reported an

EXTRACTION OF A DISLOCATED LENS BY DR C R AGNEW'S BIDENT

The patient received a blow on the right eye This was immediately followed by loss of sight Examination showed that the lens was dislocated No treatment was recommended at that time Some months later, pain suddenly appeared in the injured eye The lens was found to be cataractous and incarcerated in the pupil Cocaine was applied but did not relieve the pain Atropia relieved the pain Later the lens became loose and was found in the vitreous The tension was normal It was decided to remove the lens The bident was passed back of the lens, pressing it forwards The incision in the cornea was then made and the lens removed with a spoon The eye was dressed with absorbent cotton and recovered without complication V= $^{0}/_{100}$ with 4 5s With the bident many eyes may be saved if the lens can be brought in sight There is no danger from injury of the ciliary body

Dr H Knapp thought that in these cases there was not much difficulty in removing the lens, which could often be accomplished with the loss of very little vitreous, but the danger came in afterwards from inflammatory complications and there the sight was lost He thought it better to at once enucleate the eye and thus lessen the dangers of inflammation He considered the bident, which was exhibited, to be an ingenious instrument For the past six or eight years he had not introduced an instrument within the globe to facilitate the removal of the lens This he was able to accomplish by external manipulation

Dr E Williams, of Cincinnati, considered the instrument an ingenious and useful one, but in most cases he agreed with Dr Knapp that in most cases enucleation was the best procedure

Dr C R Agnew thought that the bident might be useful in the removal of foreign bodies from the interior of the eye He did not acquiesce in the view that enucleation was a simple operation He regarded it as a serious mutilation

Dr C H Williams, of Boston, thought that there was another alternative than those mentioned, and that was the removal of the contents of the eye and closure of the anterior opening with sutures It gives a better stump for the artificial eye

Dr D B St John Roosa, of New York, reported a case of

EXTRACTION OF THE LENS IN ITS CAPSULE

For the past three years the doctor had been in the habit of removing the lens in its capule In a large proportion of cases without iridectomy The use of cocaine has facilitated the operation He referred particularly to the method of dislocating the lens The section is made as usual, but large After puncture and counter-puncture are made, the knife is turned on its back so that it rests on the iris The knife is then moved up and down two or three times until the lens is seen to move, then the section is completed and then the lens can usually be removed with no loss of vitreous The manipulations on the cornea are made with one or two spoons Sometimes after the operation it is rolled under but in many cases the pupil is circular The writer had performed the operation between thirty and forty times, and is satisfied with its success If the lens is not dislocated, iridectomy may be performed and the operation practiced A paper on the subject is to be found in the Transactions of the New York State Society, and in the *Medical Record* for February 1885

Dr J A Andrews, of New York, read a paper on

THE TREATMENT OF PURULENT CONJUNCTIVITIS

The treatment is based upon the belief that the contagious element is of the micrococcus variety He related a case in which he had secured an inoculation of the seventh generation of a pure culture of a gonococcus This is the first case inoculated with the gonococcus He showed an instrument which he had devised to wash out the conjunctival cul de sac It consisted of an eye speculum with hollow arms through which fluid may be passed He had found bichloride of mercury solution (1 to 10,000) serviceable, but apt to irritate A six per-cent solution of carbolic acid is useful as it inhibits the movements of the white corpuscles Irrigation should be maintained for ten minutes, in order to remove all secretion Nitrate of silver solution (1 to 12 per cent) is then used, and an antiseptic dressing is next applied This consists of vaseline and boracic acid or carbolic acid, but he laid especial stress upon the importance of maintaining irrigation of the conjunctiva by means of the instrument referred to above

Dr Charles S Bull, of New York, reported a case of

ABSCESS OF BOTH FRONTAL SINUSUS

The patient had been hit on the forehead fourteen years previously with a piece of wood This produced a fracture of both nasal bones and deviation of the septum In seven weeks the wound had closed Ten years after the accident a swelling was noted on the upper inner angle of the right orbit, which could be made to disappear by pressure There was complete ptosis An incision was made into the swelling just beneath the orbital margin and a large quantity of pus escaped (two or three ounces) The cavity was washed with a five per-cent solution of carbolic acid No connection with the superior nasal meatus could be detected, but the bony septum between the two frontal sinuses was absorbed, and both sinuses were converted into large cavities The entire ethmoid bone was an immense cavity, the bony suture being absorbed A number of osteophytes were removed A drainage tube was introduced The patient was discharged six weeks after the operation, and recovered completely The ptosis disappeared, and the eye was restored to the normal plane

Dr Knapp recommended the substitution of a silver tube for the rubber drainage tube usually employed

Dr B E Fryer, of Kansas City, reported a case

OF BONY TUMOR OF THE ORBIT

The patient, a boy six years of age, came under observation April, 1885 There was swelling of left orbit which included the whole line of the superciliary ridge It was quite hard Some time before the boy had been struck by a piece of wood, but it was thought that no splinter had lodged beneath the skin It was decided to remove the tumor This was done, and on examination it proved to be a bony cyst, within which was a small piece of wood This was enclosed in bone on all sides The edges of the wound were brought together, and healing resulted without complication

Dr Norris, of Philadelphia, presented a new sheet of

METRIC TEST LETTERS,

devised by Dr Charles A Oliver, of Philadelphia

Dr E E Holt, of Portland, Maine, reported

SOME OF THE RESULTS OBTAINED IN THE COMPILATION OF 1,000 CASES OF REFRACTION

The writer had been in the habit of recording all the measurements connected with the prescribing of glasses As a result he had found in 1,000 cases thus recorded, the average distance between the centres of the pupils of the human eye to be about 60 M M The average of other measurements were given and the importance of the physician determining and designating them, and then seeing that they were carried, was dwelt upon

Dr George C Harlan of Philadelphia, reported a case of

RAPIDLY PROGRESSING MYOPIA CHECKED BY SECTION OF THE EXTERNAL RECTUS

The case was that of a boy of 16, in whom myopia was progressing rapidly The external rectus was divided seven years ago The internal rectus was also exercised by the use of prisms Since then then there has been no increase of the myopia

Dr Samuel Theobald, of Baltimore, reported

THREE CASES OF PROGRESSIVE ASTIGMATISM

Astigmatism of traumatic origin, he remarks, is observed not infrequently to undergo changes in degree, but it has been commonly held that congenital astigmatism does not alter in degree, though the refraction of the eye as a whole may undergo marked change The cases which he reported, he thought, proved that there were some exceptions *to this rule* The first case was that of a young man who, with a high grade of hypermetropia, had astigmatism of each eye which required for correction, A plus $^1/_{60}$ C The case was observed at intervals during a period of twelve years, and during that time the astigmatism increased until finally A plus $^1/_{13}$ C was needed to correct it

The second case was one of compound myopic astigmatism in a young man, in which there occurred, along with an increase of the myopia, a growth of the astigmatism, during a period of 16 years, from $^1/_{16}$ to $^1/_{8}$

In the third case a simple myopic astigmatism, in a physician 25 years, requiring A $^1/_{4}$ C in one eye and A $^1/_{30}$ C in the other for its correction, changed in five years so that A $^1/_{11}$ C and A $^1/_{13}$ C respectively, were needed

The speaker *regretted that the examinations* had not all been conducted under a mydriatic, as they would then be more apt to carry conviction to the minds of those disposed to be sceptical regarding the progression of astigmatism He did not believe that the result would have been *different Such cases* are not frequent, but it is important that the fact should be recognized As the increase of astigmatism is probably due to change in the corneal curvature, the phenomenon should be met with more frequently in the yielding myopic, than in the relatively stable hypermetropic eye

AFTERNOON SESSION

Dr Lucien Howe, of Buffalo, exhibited an arrangement for the demonstration of refraction and accommodation It consists of two bands of thin metals bent in such a manner as to represent the outlines of a double convex lens, and passing through it two jointed rods representing the rays of light ordinarily figured as passing through such a lens, and joining at its focus The flexible bands were attached to each other above and below, so that by approaching or separating the sides, they could be made to show less or greater convexity The rods representing the rays of light were jointed near the centre in such a way that while the two halves could be placed in such a direction as to show the light as entering parallel to the axis of the lens the other two portions could be bent to a point to show the convergence of rays at the focus By alteration in the position of these rods, and also in the forms of the bands representing the lens, all the different variations of the laws of refraction and the changes in accommodation can be demonstrated to a class

Dr C S Bull reported

TWO CASES OF UNILATERAL TEMPORAL HEMIANOPIA

The first case was that of a man aged 60, first seen in 1884 In 1849 he received an injury which rendered him unconscious When he regained consciousness he found that he was blind in the right eye *In 1883 he noticed a central obscuration of* vision in the left eye There was no syphilis, no disease of the heart, and no indication of Bright's disease He had never used alcohol to excess, but smoked and chewed tobacco in large amounts There was an irregular central scotoma The media were transparent and the iris normal Both optic discs were of a dirty white color, and in both there was a deep excavation with pulsating veins, and in the left eye there was a retinal hæmorrhage The tension was normal

The second case occurred in a man aged 60. He had been knocked down by a horse, receiving a depressed fracture of the frontal bone above the left eye. The patient was unconscious or delirious for four weeks following the accident. When he regained consciousness, he found that the left eye was blind. Examination showed that in the left eye there was somewhat irregular temporal hemianopsia. This may have resulted from fracture of the superior orbital plate, with injury to the fibres of the optic nerve going to the temporal half of the retina.

Dr. Haskett Derby, of Boston, reported

TWO CASES OF PENETRATION OF THE EYE BALL BY SCISSORS IN THE OPERATION OF STRABISMUS.

The first case was that of a young man on whom an operation for strabismus had been attempted. The surgeon inadvertently picked up a pair of sharp pointed scissors. The point of the scissors suddenly penetrated the eye ball and a portion of vitreous as large as a cherry stone escaped. The operation was abandoned and Dr. Derby was called to see the case. The eye was bandaged and the patient put to bed. Several attacks of inflammation supervened, but the patient was discharged on the 41st day with $V = {}^{1}/_{10}$.

In the second case the scissors also entered the sclerotic, but after a somewhat tedious convalescence the wound was found closed on the 21st day with vision as good as before the operation.

Dr. Knapp stated that he had done 3,000 squint operations, and in three cases he had punctured the sclerotic. He, however, completed the division of the muscle and the patients recovered as readily as from an uncomplicated operation.

Dr. Mittendorf had been present at a strabismus operation where the sclera was opened. He advised the surgeon to complete the operation. This was done and the wound had healed in four or five days. He thought that in case the accident happened that the division of the muscle should be completed.

Dr. E. Williams reported a case in which he had punctured the eye. The patient recovered without difficulty.

Dr. E. E. Holt read a paper on

STRABISMUS, ITS CORRECTION WHEN EXCESSIVE, AND IN HIGH DEGREES OF AMBLYOPIA.

The writer had employed advancement of the weakened attenuated muscle in connection with tenotomy, in certain cases of squint, and after tenotomy alone had failed to correct the deviation. He also exhibited an apparatus he had devised for showing the associated and accommodative movements of the eyes and the effects of tenotomy and advancement of the muscle in correcting squint.

Dr. C. J. Kipp at one time employed advancement, but he had given it up because it was difficult to graduate the result.

Dr. W. W. Seely, of Cincinnati, read a paper on

THE TREATMENT OF STRABISMUS INTERNUS.

He said that each year, with its added experience, had strengthened the conviction that early operations (up to the tenth or fifteenth year) are questionable, and possibly should be entirely abandoned. He combatted the idea that crossed eyes never become straight without an operation. Nothing is better established than the relation between ametropia and strabismus, and all recognize the necessity for glasses to prevent the recurrence of squint after tenotomy. Every one knows that it is possible to correct the squint by setting aside the ametropia by means of glasses. My early conviction that something should be left to time and glasses has long since grown into an absolute law of action, for I have become thoroughly persuaded that immediate perfection meant later in life, insufficiency, or even divergence. Operative procedures should not be the first consideration, but should be looked on as an adjuvant to be resorted to later on, if necessary.

He summed up as follows:

1. That with our present light, routine operative interference is wrong.
2. That to thoroughly correct the deviation in young children by operative interference is extremely liable to subject them in after life to insufficiency or external squint.
3. That a later period of life, if anything, favors better results from operative interference.

Dr. Knapp thought advancement a dangerous operation. He had always been able to correct the deviation by two or three tenotomies, and if necessary, stitching the eye to the commissure.

Dr. Theobald endorsed Dr. Knapp's views in reference to advancement. He was surprised at the conclusions of Dr. Seely. Squint operations in his hands had been very satisfactory. If postponed they are likely to prove unsatisfactory on account of the amblyopia which is liable to develop.

Dr. O. F. Wadsworth, of Boston, had studied the subject for a long time and had convinced himself that amblyopia from squint did not occur. The ability of the patient to use the vision which he has does seem to be lost by a continuance of the squint, but it may be recovered by practice. If the examination of vision was carefully made, he was certain that it would be found that the vision was not improved after the operation. It, however, is often difficult to get the full amount of vision which a squinting eye possesses.

Dr. R. H. Derby, of New York, reported a case of

ECTROPION OF BOTH LIDS, BLEPHAROPLASTY BY THE ITALIAN METHOD.

The displacement of the lids was the result of cicatricial tissue from a severe and extensive burn of the face. The lids were loosened from their attachments and the new lids formed from flaps raised from the arm. The arm was bound to the head with water glass plaster, and the pedicle was not divided until union had taken place. Photographs were exhibited showing the appearance of the patient before and after the operation.

Dr. Haskett Derby exhibited a box of

TRIAL LENSES,

made by Nachet, in which the following features were embodied:

1. The doubling of the prisms.

2 The distinguishing of the cylindrical lenses by coloring the positive settings black and the negative red

3 The adaptation of the trial frames to receive the glasses without removal from the patient's head

4 The removal of the handles from the prisms and cylindrics

Dr B Joy Jeffries, of Boston, read a paper entitled

PLASTIC OPERATIONS WITHOUT PEDICLES

The object of the paper was to make one or two suggestions which the author had not yet put in practice, but which he was ready to try when opportunity offered He suggested the use of the prepuce from the circumcision of Jewish children for operations about the eyes He also suggested that in plastic operations the desired result might be obtained without the use of a flap by employing carbolized oil dressings to retard healing, for it is well known that some time after a plastic operation the transplanted tissue has almost entirely disappeared

(*To be continued*)

DOMESTIC CORRESPONDENCE

DATA FOR THE HISTORY OF THE NINTH INTERNATIONAL MEDICAL CONGRESS

Sir —It is sometimes a useful aid, in judging of current events, to project the thoughts into the future and consider the light in which the present will appear in history With no other than fraternal sentiments, a personal application of this remark is commended to those who have taken an attitude of opposition to the arrangements for the International Medical Congress which is to hold its ninth session in America in 1887 The history of this Congress will be written This Congress will be regarded hereafter as one of the most important of the events embraced in the annals of American medicine All the circumstances connected with it will be on record In this article will be noted, for the benefit of the future historian, facts which have occurred up to the present date Where could they be more properly chronicled than in the columns of the Journal of the American Medical Association?

The American Medical Association, at its stated annual meeting in May, 1884, resolved to invite the Congress which was to meet in Copenhagen in August, to select the United States as the place of meeting for the next Congress This was resolved unanimously without discussion A Committee of eight was appointed to tender the invitation The invitation was tendered and accepted If we are correctly informed, there was no considerable reluctance manifested in the acceptance of the invitation Some objections were made on the score of the difficulty of attendance on account of the distance and the expense, but, in fact, no other invitation was before the Congress Some German members desired the next meeting to be held in Berlin, but no one was authorized to tender an invitation The same was true of Italy Here it is to be remarked that in our country there is no existing organized body competent to invite the Congress in behalf of the profession of the United States, except the American Medical Association Whether it be true or not that this Association represents fairly the profession of the whole country, no other organization has any claim whatever to such a representation An invitation could come from no other source, unless a convention were to be called for that express purpose

The functions of the Committee appointed by the American Medical Association did not end with the tender of the invitation The Committee was authorized to enlarge its membership without limitation and to form a permanent organization Moreover, it was considered that the resolutions under which the Committee was appointed, empowered it to nominate the officers of the Congress and to make all other arrangements for the meeting without need of any further action on the part of the Association The Committee, in short, believed that the entire management of the Congress had been committed to it by the Association, and it proceeded to do the work which, according to this belief, devolved upon it The result of this work is contained in the publication entitled, "International Medical Congress, Ninth Session, to be held in Washington, D C, in 1887 Rules and preliminary organization" This publication, issued under the sanction of the Committee, was distributed in this country and in other countries It was not to have been expected that the work of the Committee would be satisfactory to all Many must have felt that they were overlooked The distribution of the nominated officers of the Congress could hardly fail to provoke criticism It was hardly possible that errors should not be committed At the meeting of the American Medical Association, at New Orleans, in April, 1885, the report of the Committee called forth objections in two points of view One of these related to the geographical distribution of the officers nominated by the Committee It was objected that certain portions of our vast country were not sufficiently represented This was certainly not an unnatural objection, for it is needless to say that there exists a certain amount of sectional patriotism or pride, or jealousy, whichever of the terms we choose to apply to it, demanding recognition in all national affairs

Another objection had reference almost exclusively to one State of the Union—the State of New York In this State, for the past few years, a portion of the medical profession have revolted from the American Medical Association, and repudiated the Code of Ethics, the acknowledgment of which is a condition of membership of the Association One half of the officers nominated for the Congress from the State of New York, were taken from that portion of the profession This objection was more particularly dwelt upon These objections gave rise to a heated debate at the meeting of the Association In this debate warmth of language was used by some, as is generally the case in heated debates, and for this individuals, and not the Association, are to be held responsible As a result, the Association provided for the appointment of a new Committee consisting of members representing all the States of the Union and the Territories, with instructions to revise the work of former Committee. The motives of those who raised the objections have been questioned. It is asserted that the objections were raised in consequence of the supposed claims of the objectors not having been duly considered in the organization of the Congress. We shall not stop to discuss this question, as we are here dealing with facts, not motives. Suffice it to say, the Association recognized by a good majority the validity of the objections, whatever may have been the motives of those who were prominent in bringing them forward.

Whether or not it was wise to disturb the proceedings of the first Committee, even assuming the validity of the objections to them, is a question which is certainly open for discussion. There can, however, be no question as to the competency of the Association to do what was done. The invitation was given, it is true, in behalf of the medical profession of the United States. But it was given by the American Medical Association as representing the profession of the United States. The Association assumed responsibility for it. The Association thereby is entitled to credit if the Congress prove successful, and would be liable to censure were the Congress not successful. However unwise the action of the Association may have been, there is no appeal except to the Association itself. In dealing here with historical facts, we do not discuss the wisdom of the action of the Association.

The newly appointed Committee held a meeting in Chicago on the 24th and 25th of June, 1885. This Committee, it is to be noted, included the eight members who constituted the original Committee appointed by the American Medical Association. Following the distinctly expressed wishes of the Association, the Committee in Chicago substituted other names for the names of those nominated by the first Committee who had declared themselves as repudiating the ethics of the Association. Other changes were made with a view to geographical representation, and a certain number of new names were added. Membership of the Congress was restricted to delegates from the American Medical Association, and State and local organizations in affiliation therewith. An official publication of the proceedings of this meeting has not yet appeared, and it is understood that the publication will not appear until after another meeting of the Committee, which it is expected will take place within a few weeks. This delay, as is seen by an editorial in a recent number of the JOURNAL, is for a further consideration of new nominations, and a revisal of the rules of the Congress.

We come now to occurrences which to the future readers of the history of the Ninth International Congress will seem truly remarkable. Directly after the meeting of the Committee at Chicago, five of its members, who had been members of the original Committee, sent their resignations to the Secretary. These resignations taking place after the adjournment of the Committee, the vacancies could not be promptly filled, and the effect, whether so intended or not, was to cripple the Committee in obtaining a quorum for a subsequent meeting. Simultaneously, or nearly so, with this action, several members of the medical profession in Philadelphia, who had been nominated for official positions, held a meeting and agreed to decline any connection with the Congress under the existing organization. An announcement of this agreement was published without delay in the medical journals of New York as well as Philadelphia. Similar meetings took place in rapid succession in Washington, Boston, and Baltimore, at which similar resolutions were adopted and immediately furnished for publication. The resolutions adopted in these several cities are essentially the same, differing only in phraseology. They do not contain any explicit statement of complaints or grievances. From other sources it appears that dissatisfaction with the persons who compose the present Committee, and especially with the Secretary and Chairman, enters largely into the reasons for declining to accept any position in the Congress. The writer is not prepared to discuss this ground of opposition, were it decorous to do so. It must be said, however, of the Committee, that it apparently sought only to carry out the views of the American Medical Association, and has not nominated its members to important positions in the Congress. Moreover, the functions of the Committee in a great measure end when the organization of the Congress is completed. The work which then remains to be done, devolves chiefly on the Secretary General and other officers nominated by the Committee. It cannot, therefore, be said that the officers and other members of the Committee have taken any advantage of the opportunity to secure for themselves official positions. Their ambition seems not to have extended beyond the privilege of placing others in these positions, and the exercise of this privilege imposes upon most of them considerable inconvenience and expense. An objection to the Committee has been raised on the ground that it designs to restrict improperly the conditions for membership of the Congress. As the proceedings of the Committee have not been published, and moreover, their action in regard to the rules of the Congress is not yet completed, this objection is, to say the least, premature. The American Medical Association enjoined upon the Committee the duty of not nominating as officers of the Congress those who have repudiated the ethics of the Association. This restriction does not extend to membership of the Congress. From all that is at present known of the views of the Committee, it may be inferred that there will be no restrictions, as regards membership, on members of the regular profession. This is in accordance with the custom hitherto at the meetings of the International Medical Congress.

There seems to be no valid reason for complaint on the part of those who have made haste to announce their antagonism to the Congress, unless the elimination from official position of those who have disqualified themselves from membership of the American Medical Association be so considered. How many of those who have united to oppose the Congress are willing to admit this as the reason of their action? Practically, however, their action sanctions and encourages those who have attempted to break down the barrier between the regular profession and those who ostensibly practice homœopathy or other exclusive systems of medicine, and it virtually rebukes those who have so earnestly and successfully labored for the honor of the medical profession by sustaining the National Code of Ethics. Have all those who decline connection with the Congress under its present organization, reflected upon their action in these points of view? They cannot have given the matter due consideration. Nothing disrespectful is intended in saying that they have acted with undue haste. How often, under a temporary excitement based on misapprehensions, are conclusions formed and measures taken, which are reconsidered and relinquished after a little sober reflection!

A similar action, in quick succession, in several cities, of members of the medical profession, shows undoubtedly a concerted movement. Now concerted movements are for certain definite objects. What are the objects in the present instance? It is not to be supposed that they who have joined in this movement have done so purely from a desire to bring discredit on the profession of the United States by placing obstacles in the way of the success of the Congress. We will not venture to surmise the objects, but leave them for the future historian of the Congress. Whatever they may be, there are certain considerations which, with reference to the movement, it behooves the reflecting members of the medical profession of the United States to bear in mind. One of these is the certainty of the meeting of the International Congress in 1887. At the present moment an International Congress does not exist. The Eighth Congress existed and ceased to exist in August, 1884. The Ninth Congress will exist in America in September, 1887, and meanwhile there is no organization competent to appoint any other time or place for its coming into existence. It is true the American Medical Association at its next meeting might publish to the world that it recalled the invitation to meet in this country in 1887. Does any one suppose that this will be done?

Another consideration relates to the officers of the Congress. The work of the Congress will devolve upon certain of its officers, viz. the President, the Secretary-General, the Chairmen and Secretaries of the different sections, the Finance Committee, the Executive Committee, and the local committee of arrangements. The Vice Presidents, Secretaries, and members of the Council may be said to be ornamental, inasmuch as they are exempt from active responsibility. Now, there is no lack of members of the medical profession in this country competent to do the active work of the Congress. The success of the Congress is not dependent upon a limited number of the members of our profession, however distinguished they may be for professional attainments or however desirable may be their cooperation. There can be no risk of failure from inability to fill worthily the places of responsibility. This is as true of our country as it was of England in 1881. The offices in the English Congress were admirably filled, but who can doubt that hundreds of physicians and surgeons in Great Britain would have filled these offices worthily? The success of the Congress, so far as it depends on the resources of our own country, is to be promoted more by contributions to the subjects belonging to the several sections than by the selection of officers.

It seems to be a notion with some that the attendance on the Congress of foreign members will be greatly affected by the nominations for officers, and that troubles connected with the organization of the Congress will deter many from attending. This idea is too absurd to call for discussion. The organization of the Congress in other countries probably encountered more or less local jealousies and intrigues. What cared we for these? And what will the profession of other countries care for our local difficulties? Our transatlantic brethren, it must be admitted, are more discreet than we are as regards the washing of soiled linen. They are less inclined to give publicity to local or personal bickerings, and it is to be hoped that those connected with the medical press will take no notice of what properly belongs within the limits of domestic privacy.

The Ninth International Medical Congress, it is safe to predict, will be a success whatever may be the obstacles to be overcome. The medical profession of the United States will not be satisfied to have this Congress fail to be successful. But let it be considered that the success will be the more complete, and thereby more gratifying, more creditable, and more useful, the nearer the approach to unanimity in the efforts of the profession of the whole country to make it successful. Who will say that Surgeon J. S. Billings misrepresented the medical profession of the United States when he assured the Congress at Copenhagen that his "countrymen would do their best to secure that the future Congress should effect as much as possible for the advancement and coordination of medical science?"[1]

* * *

NECROLOGY

JOHN STAIGE DAVIS, A.M., M.D.

Died, at his residence at the University of Virginia, on July 18, John Staige Davis, Professor of Anatomy and Materia Medica in the University. He was stricken with left hemiplegia and left hemianæsthesia, with some degree of amnesic aphasia, on May 13, and his condition was very critical for about two weeks, when it became more favorable. Subsequently, however, there was a second stroke of paralysis, and death took place on July 18.

John Staige Davis was born in Albemarle Co., Virginia, on October 1, 1824, and was therefore in his sixty-first year at the time of his death. From early childhood he was a close and earnest student, as shown by the fact that he received his degree of Master of Arts at the University of Virginia at the early age of 17 years, and his Medical degree at the same institution one year later, July 4, 1841 From this time until December, 1842, he was a student in one of the hospitals in Philadelphia He then settled in Jefferson Co, Virginia (now West Virginia), whence he removed to Charlottesville, near the University of Virginia, in January, 1845 From 1845 until 1849 he filled the place of Demonstrator of Anatomy in the University, and in 1849 he took the Chair of Anatomy and Materia Medica The amount of work which fell to his care was now enormous, as the medical class of that year numbered 127, and Professor Davis was without a Demonstrator of Anatomy His duties were efficiently and ably performed however, to the satisfaction of both the pupils and the Faculty

---

[1] The Social History of the Eighth International Medical Congress by D. Bryson Delavan, M.D.

As a lecturer and teacher, Dr Davis has had few equals in America Several years ago an eminent physician and professor said of him "I studied anatomy under Dr Davis, and then went abroad, where I sat under the most eminent anatomists of Europe Cruveilhier was the peer of them all, but Dr Davis, as a teacher and lecturer, is easily the peer of Cruveilhier" Nor was his personal popularity exceeded, among his students, by his popularity as a teacher With but very few exceptions, the feelings of his classes towards him were those of respect and love He was a kind and affectionate friend, and his death will be deeply deplored by many personal friends and pupils, and by the friends of the University of Virginia

BOOK REVIEWS

Manual of the Antiseptic Treatment of Wounds for Students and Practitioners By W Watson Cheyne, M B, F R C S, Assistant Surgeon to King's College Hospital, etc 8vo, pp xiii, 151 With illustrations New York J H Vail & Co, 1885

This manual, *the author tells us*, is written with the view of enabling students to obtain a thorough knowledge of the practical details of the best methods of treating wounds The nine chapters treat of Repair and Dangers of Wounds, Bacteria and Disease, Destruction of Bacteria, Aseptic Surgery—Materials Employed, Aseptic Surgery (two chapters), Aseptic Surgery—Modifications, Antiseptic Surgery Before reading this little book we had not thought it possible that so much detailed information could be crowded into so small a space, and without any appearance of crowding, and scarcely of condensation Mr Cheyne has the happy faculty, however, which is by far too uncommon with writers, of knowing when he has come to the end of an argument, Of this book it may be said, as of his other writings, that it is condensed without being abrupt, it is detailed without verbosity, and all the instructions are given with a clearness that is particularly refreshing The oldest and most accomplished surgeon will be repaid for the reading of it, while to the young surgeon it is absolutely indispensable, and even those who do not practise antiseptic methods will learn much from it It is completed by a good index

The Pathology and Treatment of Stricture of the Urethra and Urinary Fistulæ By Sir Henry Thompson, F R C S, M B Lond, etc Fourth Edition 8vo, pp xii, 254 Philadelphia P Blakiston, Son & Co, 1885 Chicago W T Keener

This book is a complete revision of the essay to which the Jacksonian Prize was awarded in 1852, a revision brought up to May, 1885, and with the addition of a chapter on Urinary Abscess, and one on Urinary Fever, and with many additional illustrations It is scarcely necessary to say that the subjects are treated of in detail whatever Sir Henry Thompson writes is worth buying, and should be closely studied

ASSOCIATION ITEMS.

SPECIAL MEETING

Committee of the American Medical Association on International Medical Congress—The Committee appointed in accordance with resolutions passed at New Orleans will meet in special session for the transaction of urgent business, at Murray Hill Hotel, Park avenue and Forty First st, New York City, at 12 o'clock, M, on Thursday, September 3, 1885

The attention of members is called to the following resolution offered by Dr Robert Battey, of Ga, and adopted at the meeting in Chicago

Whereas It is expedient that the meetings of this Committee shall represent, as far as practicable, the profession of all portions of our country,

Resolved, That any member of this Committee who may be unable to attend a meeting shall be empowered to send as his *proxy* for the meeting, any member of the American Medical Association in good professional standing, and a resident of his State, or a member of his Government Department

R Beverly Cole, *Chairman*
Jno S Lynch, *Vice Chairman*
John V Shoemaker, *Secretary*

Philadelphia, Pa, July 24, 1885

MEMBERSHIP BY APPLICATION

At the meeting of the American Medical Association held at Washington, in May, 1884, an amendment to Regulation II was adopted, which provides that membership in the Association shall be obtainable by any member of a State or County Medical Society recognized by the Association, upon application endorsed by the President and Secretary of said Society, and shall be retained so long as he shall remain in good standing in his local Society, and shall pay his annual dues to the Association Hitherto attendance as a delegate at an annual meeting has been necessary in order to obtain such membership

Application for membership, accompanied with Five Dollars, for annual dues, and the Certificate of Membership in the local Society, should be sent directly to the undersigned, on receipt of which the weekly Journal of the Association will be forwarded for one year

Richard J Dunglison, M D, *Treasurer*
Lock Box 1274, Philadelphia, Pa

MISCELLANEOUS

New York State Medical Association—Fifth District Branch —The first *annual* meeting of the Fifth District Branch will be held in Brooklyn, on Tuesday, October 13th, 1885 There will be a morning and afternoon session

All Fellows desiring to contribute to the meeting, either by reading papers, notes or communications, or by exhibiting specimens, are respectfully invited to notify the Secretary, E H Squibb, M D, 36 Doughty Street, Brooklyn, to that effect at their earliest convenience

Deaths from Cholera in Spain —The United States Consul at Barcelona, Spain, makes the following report to the Marine Hospital Bureau of the number of deaths from cholera in the infected districts of Spain from the beginning of its appearance (March 4) to July 4, 1885

Provinces	*Cases*	*Deaths*
Alicante	1,588	646
Castellon	2,617	1,277
Cuenca	78	40
Madrid	1,700	753
Murcia	6,007	2,319
Tarragona	31	19
Fernel	12	5
Toledo	455	207
Valencia	14,928	6,801
Saragossa	628	280
Total	28,044	12,347

[Up to July 18th the deaths were 18,000 to July 25 more than 25,000, and the average of new cases is now over 2 500 daily with 1,000 deaths]

Cremation in Germany —The Berlin correspondent of the *British Medical Journal* says that at the meeting of the Berlin Verein fur Innere Medicin on June 1st, a *petition, drawn up by the Cremation* Society, to be presented to the Reichstag, was laid on the table for signature The object of the petition is to obtain the passing of a law by which cremation may be legal, though not compulsory, in Germany The petition gives various reasons in favor of cremation, the chief one being "that the latest studies of well known authorities in Germany and abroad in the field of hygiene have clearly proved that cremation is the safest preventive against the spread of infectious diseases by corpses" The petition was signed by several of those present at the meeting

Missouri State Board of Health —The following is an abstract from Circular No 1, recently issued by the Board In order that the State Board of Health may receive prompt and effective support and cooperation, and in view of the continually impending menace of a cholera visitation, it is respectfully requested and urged upon citizens of counties and towns that they promptly meet and organize county and town boards of health for their own safety and protection A simple and feasible plan for such an organization in counties where none exist is for the presiding justice of the county court to be made its President, the county clerk Secretary, with three reputable physicians added, one of whom may be officially designated as health officer, and whose powers and duties shall be clearly defined and specified When such an organization is effected it is respectfully requested that prompt notice of the same be sent to this Board

Students of the Berlin University —The number of students matriculated at the Berlin University this term exceeds that hitherto attained in any preceding term In the summer of *1873* there were only 1,590 students in the books, in 1880, the number amounted to 3,365 and this year it has reached 5,465 Comparing the figures in the Faculty of Medicine, we find 340 inscribed in 1873, 924 last year, and this summer 1,072 There are 11 students from Great Britain, and 89 from America

Official Registry of Missouri —The Executive Committee of the Missouri State Board of Health have issued the following

In anticipation of the publication of the Official Registry of Physicians, Surgeons and Midwives of Missouri, which matter was referred to the Executive Committee by the Board—the work to be undertaken so soon as it may be found practical to do so—it is respectfully urged upon all practitioners of medicine etc, who may be entitled to register under the existing law, but who have failed or neglected to do so, to send their names to the Secretary at an early date, in order that the list may be as full and accurate as possible, as well as to secure to themselves the legitimate benefit of publication in the said official registry

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM JULY 18 1885 TO JULY 24 1885

Captain Norton Strong, Assistant Surgeon, ordered for temporary field duty with battalion 8th Cav at Hillsboro, N M (S O 34, Hdqrs Dist of N M, June 27, 1885)

Captain F W Elbrey, Assistant Surgeon, sick leave of absence further extended four months on surgeon's certificate of disability (S O 162, A G O, July 17, 1885)

First Lieutenant Edward Everts, Assistant Surgeon, ordered for duty as post surgeon, Ft McDermit, Nev

First Lieutenant A S Polhemus, Assistant Surgeon, ordered for duty as post surgeon, Benicia Barracks, Cal

Captain C K Winne, Assistant Surgeon, ordered for duty at Benicia Arsenal, Cal (S O 68 Dept Cal, July 11, 1885)

First Lieutenant Edward Everts, Assistant Surgeon, ordered for duty as post surgeon, Benicia Bks, Cal

Captain C K Winne, Assistant Surgeon, ordered for duty at Benicia Arsenal, Cal Par 3 S O 70, Dept Cal, July 15, 1885 (Modifies par 2, S O 68 c s, Dept Cal)

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE TWO WEEKS ENDED JULY 25 1885

Fessenden, C S D, Surgeon, leave of absence extended eight days on account of sickness, July 20, 1885

Irwin Fairfax, Passed Assistant Surgeon, granted leave of absence for ten days, July 14, 1885, to inspect unserviceable property at St Louis Mo, July 15, 1885

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY
Vol V Chicago, August 8, 1885 No 6

ORIGINAL ARTICLES

CARDIOGRAPHY[1]

BY A T KEYT, M D,
OF CINCINNATI OHIO

Cardiography comprehends the art and science of the instrumental registry of the movements and phases of the heart's revolution Or, the term may designate either the art of producing, or the science resulting from, such graphic representations The instrument which writes the changes is properly termed the cardiograph, and the graphic line produced by it, the cardiogram Cardiography is less known and practiced than sphygmography, nevertheless its history is not unworthy of attention

The first successful auto-records of the living heart were obtained in 1860 by Chauveau and Marey in their brilliant series of experiments on the horse These experiments have become classical and their *technique* need not be detailed here Suffice it to state that the variations of the blood pressure in the cavities of the heart and in the aorta, as also the impressions of the heart against the chest-wall were faithfully and simultaneously recorded during the heart's revolutions The results were magnificent, and may be formulated as follows

1 The line of a cardiogram ascends and remains more or less elevated in ventricular systole, while it descends and remains more or less depressed in ventricular diastole, the lowest point of the main ascent marking the beginning of systole, and the highest point of the main descent marking the beginning of diastole

2 The two ventricles are synchronous in their action

3 The auricular systole precedes by a short interval the ventricular systole

4 The trace of the pulsation of the heart taken from the thoracic wall agrees exactly in time and substantially in form with the trace of changes of blood-pressure taken from the interior of the ventricle

5 The ascent of ventricular pressure precedes the ascent of aortic pressure by a short interval, and the ascent of arterial pressure at remoter points, by longer intervals

These precious facts having been established, the way was cleared for successful cardiographic (and cardio sphygmographic) experiments on man For this consumation it only remained to produce an instrument, which, applied to the chest-wall at the point of sensible cardiac impulse, would faithfully register the movements there, to secure trustworthy representations of the movements of the heart. Cardiograms from the chest-wall of man were first obtained with Marey's sphygmograph, but it was soon found that this instrument was ill adapted to the purposes of cardiography Marey set himself about to devise an efficient cardiograph Retaining the tambour principle and air as the medium of transmission, he constructed, and experimented with, many different forms of instrument, and in turn relinquished one after another as not sufficiently satisfactory Finally he has settled upon one with the mechanism and working of which he expresses himself well pleased[1] It constitutes a part of his new polygraph—an apparatus devised for the simultaneous inscription of the heart and arterial pulse

The cardiograph consists of a receiving tambour, carrying a button or knob on its membrane, and encircled by an outer rim or case in which it is advanced or retracted by a simple device, to secure the required position and pressure in relation to the chest-wall It communicates by a flexible tube with a second or operating tambour whose membrane is connected with a writing lever through an articulated stem attached to its center The instrument is placed with the button of the membrane over the spot of impulse, when the movements received are transmitted by the column of air to the membrane of the second tambour, whose lever amplifies and writes them on the revolving surface of a recording cylinder Excellent and trustworthy cardiograms are obtained with this instrument

The author's compound sphygmograph is also well adapted as a cardiograph It, like Marey's, utilizes the tambour principle, but differs from his, notably, in transmitting by water instead of air It admits of fine adjustments to insure requisite and uniform sensibility It has a manometer tube which is of signal service It is provided with a chronograph It admits of combination with a fellow instrument for purposes of simultaneous inscriptions It is convenient and accurate, and with it the practice of cardiography is a very simple matter Its cardiograms are well delineated and present similar forms with those collected by Marey's. Such are the mechanisms which have brought the science of cardiography to its present status, and which seem to fulfil every requirement for ready and truthful cardiographic observations.

---

[1] Read in the Section of Practical Medicine Materia Medica and Physiology at the Thirty sixth Annual Meeting of the American Medical Association

[1] La Circulation du Sang 1881 p 706

THE FORM AND INTERPRETATION OF THE CARDIOGRAM

The typical cardiogram is no longer a strange delineation. It is recognized, in general terms, as a line (read from left to right) quickly rising to a summit, then falling sharply a short distance, then thrown into secondary waves (usually two), then suddenly falling to a point below the beginning, then rising again, first rather quickly, and then more gradually by secondary waves to the point of beginning of the next revolution. In the accompanying figures of cardiac-traces this description is verified. In No. 1, solid line, the main ascent is from A to B, the first descent from B to C, the upper secondary waves from C to E, the main descent from E to F, the second ascent, rather sudden, from F to G, and the lower secondary waves on a gradually ascending line from G to A, the basal point of next main ascent.

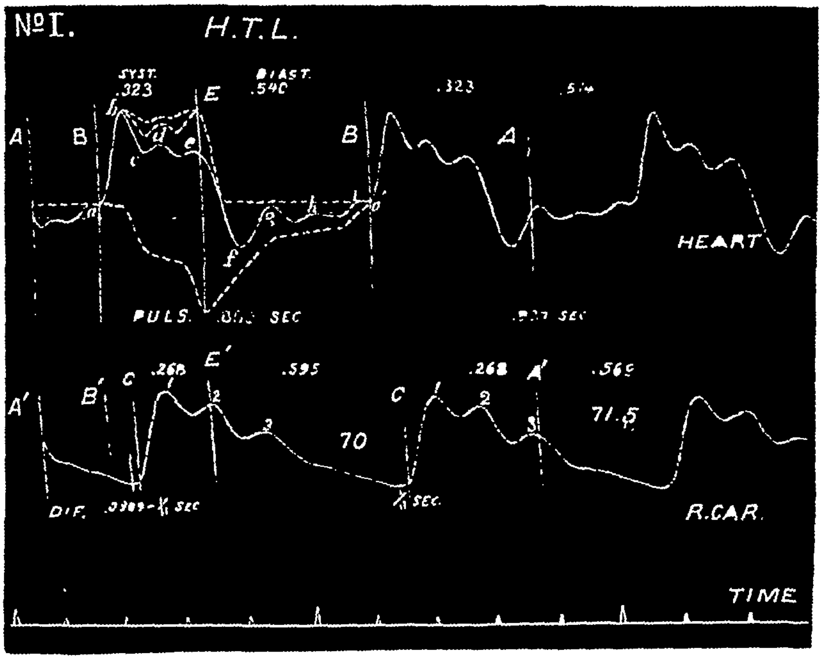


FIG. 1.—Simultaneous traces of the heart and carotid, from a healthy man, aged 28 years, with the time in fifths of seconds, enlarged to double size by photography, and marked for illustration.

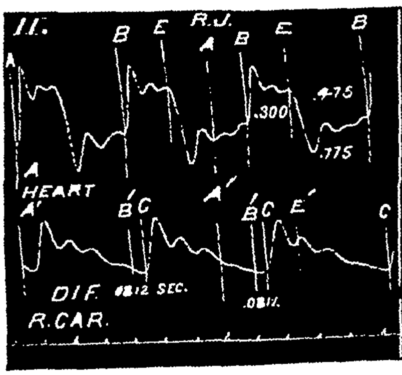


FIG. 2.—Same (normal size) from a healthy young man, aged 20 years.

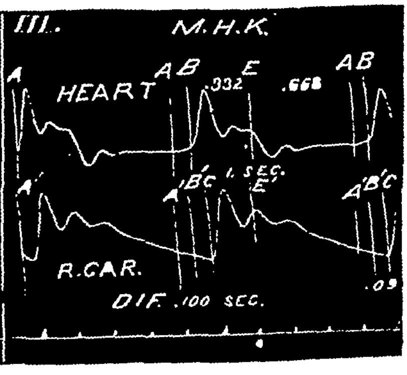


FIG. 3.—Same from another, of the same age.

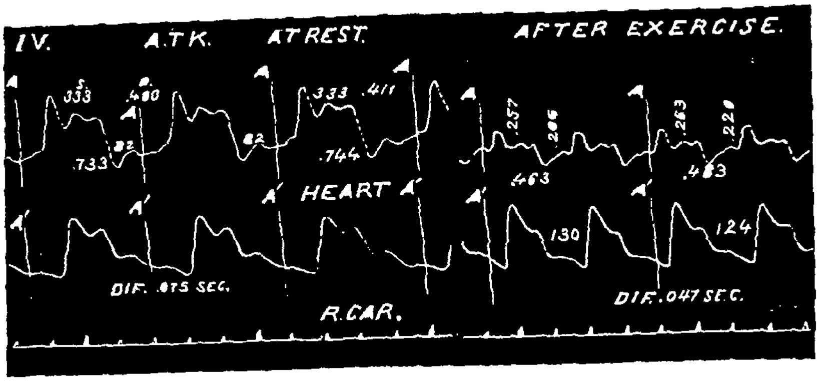


FIG 4 —Same from a man aged 54 years, at rest, and immediately after active exercise

This typical form, however, is often to an extent departed from, even in cardiograms of normally acting hearts The most common variations (intrinsic) pertain to the line between the first summit and top of the main descent, and the line between the bottom of the main descent and beginning of the next main ascent In conditions of disease there are marked variations from the typical normal form

There are also variations (extrinsic) from the instrumental adjustment, which pertain (a) to the velocity of the recording surface, and (b) extent of permitted excursion of the lever The cardiogram will have length according to the first, and height according to the last, but as the true relations are maintained of the different parts of the trace, these variations are not material

Again, there are modifications from faulty applications of the instrument, and from unfavorable apposition of the heart with the chest-wall Either of those causes may produce an inverted, or partially inverted, trace whose reading will be uncertain Moreover, it is true that in certain persons no cardiograms can be obtained in consequence of unusual compactness or thickness of the chest-wall preventing transmission of cardiac movements This personal incapacity is a serious drawback against the universal utilization of cardiography for clinical purposes, but happily most persons are capable of affording good cardiac traces

The cardiogram is a precious document It is the record of the heart's pulsations written by the heart itself Every phase of this record answers to a corresponding phase of the cardiac cycle, and the interpretation is now well understood The line between the bottom of the main ascent and top of the main descent answers to ventricular systole, and the line between the top of the main descent and bottom of the next main ascent answers to ventricular diastole, and the small wave, single or double, which immediately precedes the main ascent, answers to auricular systole The main ascent represents the onset of ventricular systole, the first fall, expenditure of the onset and quick escape of blood into the artery, the upper secondary waves, action and reaction and reciprocal play of blood between ventricle and artery, the main descent, the onset of ventricular diastole, the next rise, filling of the ventricle, the subsequent more gradual rise continued but slower ventricular filling, and the lower secondary waves, if more than accounted for by auricular systole, represent oscillations of the blood between ventricle and auricle whilst their cavities are communicating and walls quiescent

With regard to the small wave immediately preceding the main ascent, this unquestionably belongs to auricular systole, but there has been a question as to the interpretation of the twin wave immediately in front of the latter The author believes that both pertain to auricular systole, the first answering to initial contraction, and the second to the sweep of the blood into the ventricle Yet, while every part of the cardiogram stands for a phase of the heart's action, unfortunately there are two cardiac events which are not distinctly shown in the cardiac trace These are closure of the auriculo ventricular, and closure of the semilunar, valves On listening to the sounds of the heart at the same time its tracing is being produced, it is observed that the first event occurs in the first part of systole and whilst the lever is rapidly ascending, and that the second event occurs in the first part of diastole and whilst the lever is rapidly descending It is thus explained, that the commotion of the onsets of systole and diastole and swift vertical motions of the lever contravene the record of the valvular closures

The mechanism of the cardiac trace, in which the operation of the factors concerned has been more minutely followed, the author has treated elsewhere [1] Let it be stated that the factors are

1 Changes of contraction and of relaxation of the cardiac fibres
2 Changes of intra cardiac blood-pressure
3 Changes of consistence of the cardiac walls
4 Changes of volume of the heart
5 Reciprocal influences between the open ventricle and artery, and open auricle and ventricle

These are the elements which in combination during the rhythmic motion of the heart operate to determine the varying line of its cardiogram It is not difficult to follow these factors and imagine their modules, and from the latter to construct a diagram of the heart's movements, which in reality proves to be the counterpart of the cardiac trace as written by the heart itself.

---

[1] Boston Med and Surg Journal September 29 1881, p 293

It is just, then, to regard the cardiogram as the faithful representative of the heart's pulsations, and to study the latter we have only to study the cardiac traces in which the cycles and phases are shown in their true limits and relations. In this we have a preeminent advantage, for manifestly the cardiac movements evade the touch and the eye for accurate determination. All the qualities of pulsation revealed to the senses, and expressed according to the usual nomenclature, as, strong or weak, quick or slow, frequent or rare, regular or irregular, are distinctly shown in the cardiogram, and, besides, the specific showings of this line relating to the chronometry of the cardiac cycles and events are far beyond the possibilities of the most practiced perception.

FACTS OF CARDIOGRAPHY

Among the facts brought to light by cardiography are

(1) Those relating to the duration of cardiac cycles.—The average duration is easily determined by the usual method of counting the number of pulsations in a given time, but the duration of individual cycles is only determined by measurement of their cardiograms. The rhythm of the heart may appear to our senses perfectly regular, and yet the variation in the length of the cycles be quite considerable. When each cycle writes in succession its beginning and ending, and the distance between is measured by a simultaneously written chronogram, the duration is determined with certainty and precision, and we are enabled to reach results before unknown, and unattainable by ordinary methods of observation. By this method it is demonstrated that in pulsations which appear the most regular and equal the rhythm is continually varying within short limits. There may be a few successive cycles which measure the same, but usually the duration varies. These small variations, although distinctly measurable by the chronogram, are, as stated, wholly inappreciable to the touch, or eye, or ear. In figure 5, the top row of figures shows in decimals of a second the duration and variation of individual cycles, as carefully measured on the chronogram in fifths of seconds, below. Thus we have come to learn that the heart, however regular its action may appear, is subject to an incessant oscillation of rhythm.

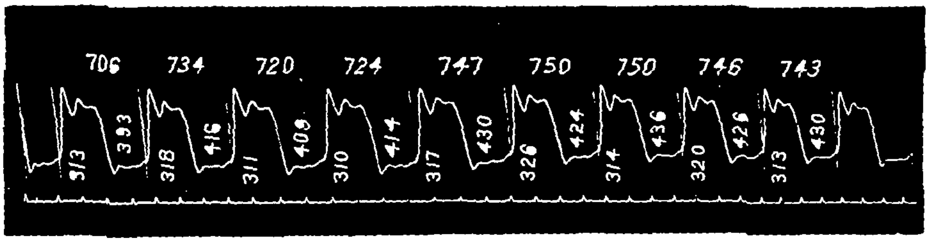


Fig. 5

Not to dwell on the causes of these rythmic variations, the fact of a definite relationship between the respiration and variations of the cardiac cycle may here be mentioned. It has been demonstrated that the cycles of the heart are shorter in inspiration and longer in expiration, the shortening running over into the first part of expiration and the lengthening running over into the first part of inspiration. See figure 6.

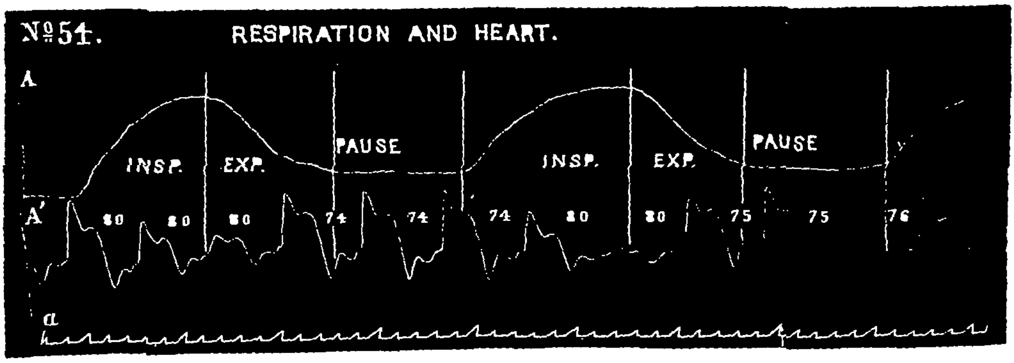


Fig. 6.—Respiration and heart traced simultaneously, with the time, and marked to show the pulse rate of the individual cycles.

(2) *Facts relating to the duration of ventricular systole and diastole* Without cardiography there are no means of determining, even approximately, the duration of the periods of contraction and relaxation of the ventricle, with cardiography these durations are determined with the greatest facility and accuracy The cardiogram, as stated, marks the beginning and end of these phases, and determination of their duration is only a matter of measurement on a horizontal line Concerning these points investigation has brought out the following formula of results

A —With pulse-rate at 75 per minute, (cycle four-fifths = 800 second), the average duration of systole is about 326 second, and of diastole about 474 second

B —In the small variations of cyclic rythm systole usually also varies, but its variations may be either with or against the sense of the variations of the cycles In considerable cyclic variation systole is shorter with short, and longer with long cycles

C —In the small variations of cyclic rhythm diastole usually, also, varies, and in much greater degree than systole, and almost always in the same sense as the cyclic changes In considerable cyclic change the diastolic shortening or lengthening is correspondingly large

D —Systole and diastole may both vary their duration without change of the cycles, in which case the shortening of one will exactly equal the lengthening of the other

In illustration of these statements figure 5 may also be studied The systoles were carefully measured and the diastoles computed by deducting the latter from the corresponding cycles The figures within the divisions express, in decimals of a second, the values found The pulse-rate of the individual cycles of the run varies between 80 and 85 per minute, and the average rate of the nine cycles is 81 5 per minute

(3) *Facts relating to auricle* — Although the theory, that auricular contraction occurred in the latter part of the period of ventricular relaxation, was well accepted, it remained for cardiography to produce indubitable demonstration of the fact, and definitely determine the relative position and time of this event Graphic experiments on animals and on man go to prove that the systole of the auricle precedes the systole of the ventricle by an interval which averages about one-fifth the duration of the cardiac cycle, the proportion, however being less in long, and greater in short cycles In animals the auricular trace, as obtained directly from the auricle, is in form of a pronounced single wave, but in man the trace, as obtained indirectly through the ventricle, is in form of two small waves, as said before The double wave of man occupies the same proportional interval as the single wave of animals

These are specimens of the results of pure cardiography In a word, by it we learn the form and chronometry of the heart's pulsations The facts, if not extensive in range, are such as may be multiplied by every experimentation, and like those of clinical thermometry become innumerable They commend themselves for their positiveness and precision, and as supplying a void in our knowledge of the finer physiology of the heart's movements Besides, they claim our appreciation in that they are essential and preparatory to the richer and more practical developments of simultaneous cardio-sphygmography

---

SYMPATHETIC OPHTHALMIA WITH OSSIFIC AND CALCAREOUS METAMORPHOSIS[1]

BY FLAVEL B TIFFANY, M D,

OF KANSAS CITY, MO

It is with some hesitancy that I come before this assembly with a paper on sympathetic ophthalmia, a subject the literature of which is so voluminous and opinions so greatly at variance But considering the importance of the subject, the frequency of its occurrence and its direful results, it may not be out of place for me to report some cases which have come under my observation The cases which I shall present are complicated with some ossific or calcareous metamophoses, one having a worm, lanceolatum distoma, of the choroid

Ever since sympathetic ophahalmia was first announced by Mackenzie, the disease has been looked upon as one of the most dangerous and formidable which the eye is heir to Its approach is insidious, and when the flame is once kindled, it is extremely difficult to smother it before great damage is done Plastic exudations have taken place ere the patient is aware that he has any difficulty of the eye, adhesions are formed, binding the iris to the anterior capsule of the lens and the pupilary area is filled or the pupil is occluded and blindness ensues That sympathetic ophthalmia is a plastic inflammation of some portion of or of the entire uveal tract, is quite generally acknowledged In considering the pathology of the disease, it will, no doubt, be agreed that it is a disease peculiar to the uveal tract, and that the ciliary body and parts in near proximity are the first to be involved But when we revert to the etiology of the disease, I am sure that there will be a difference of opinion as to whether it is a transmitted or a reflected affection According to my observations and data collected I must regard the affection as a reflected disease through the medium of the ciliary nerves, notwithstanding Arlt's strong argument in favor of its being a continuation of an inflammation of the optic nerve through the optic commissure, or the assertions of others who claim to have traced the hypothetical microbe of the offending member through the optic nerve to the other eye In support of the theory that sympathetic ophthalmia is a reflected disease and that it is through the medium of the ciliary nerves, and due to diseased filaments of these nerves, and not a progressive inflammation through the optic nerve, I give the following data

1 Sympathetic ophthalmia is a plastic inflammation, a form of inflammation peculiar to vascular tissue not to nerve tissue

2 It is an inflammation of the uveal tract usually

---

[1] Read in the Section of Ophthalmology and Otology at the Thirty Sixth Annual Meeting of the American Medical Association

of the ciliary body, frequently involving the iris and choroid while the retina remains intact

3 In inflammation of nerve tissue it is the neurilemma or medullary portion rather than the axial part that is involved

4 The optic nerve sheath does not enter the eye but passes over on to the sclera, leaving the nerve to enter the eye as a non-medullary nerve

5 The ciliary nerves enter the eye and do not leave their medullary portion until they are lodged in the ciliary region

6 The ciliary nerves go to supply, and are intimately connected with the uveal tract, and ciliary region, whereas the optic nerve has no immediate connection with this tract

7 Were the optic nerve the medium of transmission or propagation of the inflammation by extension, enucleation would not be likely to arrest the inflammation

8 Sympathetic ophthalmia occurs in eyes with completely atrophied, and even cretaceous degeneration of the optic nerve

9 The sympathetic irritation has been arrested by division of the ciliary nerves near their entrance into the sclera, leaving the optic nerve intact

The cases which I wish to present, are interesting and instructive, both as corroborating what has been said regarding the etiology of the disease, and in the specific phenomena of calcareous and ossific degeneration

Case 1 —Charlotte K , a Swede, aged 64, was led into my eye and ear clinic on Sept 30, 1884 With her right eye she could but count figures 16 inches away, while she was totally blind in the left At 15 years of age, while playing on the grass one day, she accidentally discovered that she was blind in the left eye She asked her mother if it was true with other people as it was with her, that if they covered the right eye they could not see, whereas if only the left eye was covered the sight was good? This was the first knowledge her parents or friends had of her blindness She was taken to a physician in Sweden, who told the parents that their daughter had a gray star of the left eye There was no remembrance of her ever having received an injury or of her having had an affection of any kind in the eye, nor had she ever had any pain or soreness there, surgical or medical treatment of course she had not had The sight of her right eye had always been good up to a few weeks previous to her first visit to me Up to that time she had never experienced inconvenience of any kind from this eye At this time, Sept 15, 1884, when milking, the cow switched her tail in the patient's face, striking her left eye with some force, occasioning considerable pain which subsided after a few hours, three or four days subsequently her right eye began to grow dim, the dimness gradually increased up to the time when I first saw her, when, as before stated, she had only a very small amount of vision

Ophthalmoscopic examination revealed choroiditis-pigmentosa, floating bodies in the vitrious, with some slight opacity of the lens Diagnosis Choroiditis with incipient neuclear cataract of R E There was a very dense leucoma of the left, which would not permit an examination of any of the internal structures The cornea also had centres of cretaceous metamorphoses, the intra-ocular tension was considerably increased especially at the posterior portion where the eye firmly resisted any pressure I regarded the eye as an old glaucomatous eye, and the source of the irritation to its fellow, and accordingly urged immediate enucleation, notwithstanding there was no pain or soreness, nor ever had been except for the short interval succeeding the injury from the cow's tail

As I enucleated the eye, it was accidently dropped and fell to the floor, giving a sound like that of a stone or bone Upon making a transverse section, the following macroscopical conditions were found Cornea hypertrophied to several times its normal thickness, entirely leucomatous with extensive calcareous metamorphoses The crystalline lens was quite calcified in situ, the anterior chamber obliterated and iris in juxtaposition with the cornea, the retina completely detached, and coarcted by an osseous cup, which occupied the whole fundus of the eye (with the exception of that part opposite the optic nerve) and extending in part to the ora serrata The opening at the optic nerve, through which passes the retina, measures a fourth of an inch in diameter, and at this part the plate or cup of bone is at least a fourth of an inch in thickness, while it gradually decreases in thickness as it approaches the ora serrata In Dr Knapp's able article on "Bone Formation in the Choroid," he asserts that these ossific deposits of the eye are only found in the choroid, and that they invariably begin in the inner or capillary layer

In making sections of different parts of the choroid, I find that this case bears him out in the assertion that the ossification begins in the capillaries, but, instead of its being near the ora-serrata or ciliary body in the case under consideration, the ossification evidently began near the entrance of the posterior ciliary nerves and arteries, where the cup is the thickest The osseous formation seems to be wholly confined to the inner layer of the choroid, involving more particularly the radicals or capillaries

Dr Alfred Voorhies speaks of a bony formation of the crystalline lens (no ossific deposit elsewhere) He claims to have found in his specimen Harvasion canals, canaliculæ, and lacunæ, but he does not attempt to show how the bone was developed, and in what way the canals and canaliculæ were formed If the lens, or even the capsule, possessed blood vessels, we might more easily account for the phenomenon, or, in other words, we can account for bone formation in vascular tissue, where there is constantly an interchange of fluid, but even here we do not expect to find the same structure as in the physiological formation of bone, for how could we have Haversian zones or lamellæ canals, and canaliculæ, without, first, cartilaginous tissue with its cells surrounded by zones and covered by vascular perichondrium

Turning to the microscopical examination of the case under consideration we find that it illustrates forcibly the hypothesis that Dr H Knapp makes prominent in his article, that ossification always begins in the capillaries

Sections of this specimen show canals, lacunæ, and osteoblasts, but the Haversian zones or lamellæ do not appear How could they without a previous cartilaginous skeleton to build upon? Another point of interest is the *time* of development of the osseous growth From the fact that the patient was blind of this eye from the time that she was 15 years old (possibly from birth), and has now attained the age of 64, the bone may have been been many years in forming The bone formed all around the optic nerve, crowding against it, even cleaving the retina from the choroid throughout its whole extent Yet no sympathetic ophthalmia was produced until the bone had reached the ciliary region, a fact going so far as one case can, to prove the theory that sympathetic ophthalmia is a reflected, not a transmitted disease

After enucleation this patient's vision was increased to $^{20}/_{70}$ and the symptoms of hyalitis passed away I have not seen the patient for several months, and do not know the condition of the cataract

Case 2 —Kate B , aged 20, visited me May 21, 1881, for an affection of the right eye The following is the history as given by herself "When a child in school I was troubled with pain in my eyes, especially in the night The pain was also severe through the temples and over the brow, this pain was intensified by close application to study One day I was kept after school to learn a lesson in geography, which I had failed to get on account of this severe pain, the lesson required close looking, being a map lesson I told the teacher that my eyes pained me so that I could not study, but she insisted on my having my lesson then and there I went home that night with a terrible pain in my eye, which lasted for weeks I was unable to attend school or read a word for two years, at the end of which time I attempted to resume my school work, but my eyes troubled me so that I was unable to attend regularly I went to school, off and on, for two years longer, when I was obliged to desist from all study In the winter that I was 16 my health was very poor, and the pain in my right eye was almost constant My eyes were then crossed Four years later an operation was made on my right eye for the cast After this operation, the eye was much worse "

When Miss B visited me, I diagnosticated secondary cataract in the right eye, with posterior synechae, and in the left, a high degree of hypermetropia I made an iridectomy of the right, and corrected the hypermetropia of the left eye In a few months I made keratonyxis of R E The eye did very well for a time, when repeated paroxysms of glaucomatous pain appeared, destroying entirely the sight There were at this time symptoms of sympathetic ophthalmia in the left eye Three years ago last Christmas I enucleated the right eye

Upon cutting the globe open I found an ossific deposit in the choroid, embracing about one-fifth of this membrane, at the fundus near the macula lutea The portion of the lens which had not been absorbed, was calcified After removing the eye there was considerable hæmorrhage, which gave some trouble in controlling, and for which I tamponed the orbit with a sponge, leaving it in over night The next day when I attempted to dress the orbit, I found to my surprise that sponge-grafting had taken place, so firmly did the sponge adhere to the stump, that I was obliged actually to tear it away, leaving some small bits in the wound Ever since the removal of the eye the patient has suffered more or less pain in and about the orbit, abscesses would occasionally form in the conjunctiva of the stump, discharging into the orbit and through the nose The periphery of the orbit has always been very tender So great has been the hyperæsthesia, that the patient has never been able to wear an artificial eye with any comfort. The pain and tenderness of the stump and surrounding parts have always been increased during the catamenia, and for the past year these periodic paroxysms have assumed a much graver aspect than previously, the pain no longer being confined to the right side, but frequently attacking the left eye also, and culminating in severity at the occiput, or base of the brain While the pain lasted the patient would complain of nausea, and of seeing a halo of prismatic colors when looking at the light of a lamp, great dimness of sight In fact many of the symptoms of glaucoma were present

Regarding these symptoms as pathognomonic of sympathetic ophthalmia, and looking for the cause in the cicatrix of the stump of the eye removed, I determined to excise the cicatrix accordingly, Feb 6, 1885, I resected a portion of the stump, since which time the patient has not suffered the least pain in the empty orbit, and although there have been now and then slight twinges of pain in the left eye, no paroxysm has occurred, nor has there been any dimming of sight I think, therefore, we may conclude that the source of the irritation was located in the cicatrix of the stump, where, probably, there was entangled filaments of the ciliary nerves, upon whose liberation the symptoms of sympathetic ophthalmia immediately vanished

Before concluding, I wish to call attention to another interesting specimen of ossific metamorphosis of the eye In Dr H Knapp's article on "Bone Formation," he emphatically states that the choroid, or the uveal tract, is the only part of the eye which is susceptible to ossific metamorphosis In this specimen, I think you will agree with me that there is at least an apparent bony formation in the sclera, embracing a rim nearly half an inch in width, in the region of the sclero corneal junction, while the uveal tract is entirely free from the slightest ossific deposit

In the fundus of this eye near the optic nerve we find a worm, about a half inch long, embedded in the choroid even to the sclera I am sorry to say that I have no history of this eye, as it was not cut open at the time of enucleation, but placed in alcohol for future examination I only know that it was diagnosed as a glaucomatous eye, and removed to check imminent sympathetic ophthalmia

A CASE OF MEMBRANOUS OCCLUSION OF THE POSTERIOR NARES, WITH OPERATIONS BY THE GALVANO-CAUTERY[1]

BY W E CASSELBERRY, M D ,

PROFESSOR OF MATERIA MEDICA AND THERAPEUTICS CHICAGO MEDICAL COLLEGE LECTURER UPON LARYNGOLOGY AND RHINOLOGY PRACTITIONER S COURSE 1885 CHICAGO MEDICAL COLLEGE PHYSICIAN TO THE THROAT AND CHEST DEPARTMENT SOUTH SIDE DISPENSARY

It is a source of much relief and gratification to discover the fundamental cause of an obscure chain of symptoms, and when enabled to effect an immediate removal of the cause and thus a radical cure of the disease, we experience a sense of rejoicing which repays us, abundantly, for the many disheartening cases necessarily encountered

Mr E , æt, about 40, native of Russian Poland, has suffered during the past thirteen years from an obstruction of the left nasal chamber Thick, viscid, and foul muco purulent crusts accumulated in the naris and naso-pharyngeal space, which he could neither expectorate nor evacuate by "blowing the nose," because of the impenetrability of the nostril to currents of air Partial occlusion, also, of the right nasal chamber necessitated frequent and prolonged resource to mouth breathing, and he has suffered in consequence from atrophic pharyngitis and laryngitis, with painful deglutition, cough suffocative paroxysms, etc

Deafness in the left ear and annoying tinnitus aurium have long been prominent symptoms Most violent paroxysmal headaches, constant soreness upon the top of the head, vertigo, especially upon stooping, and various indescribable cephalic sensations of a most distressing character, have served to render life literally miserable He has been treated for consumption, bronchitis, catarrh, neuralgia, rheumatism, and other complaints, a rhinoscopic examination never having been made His symptoms continuing to grow in severity he consulted, at length, my friend Dr R O Babcock, of this city, who kindly referred him to me

Status Præsens —Mr E is fairly well proportioned His face is not really emaciated, but it has a pinched expression indicative of constant suffering His temperature and pulse are normal By reflected light the pharynx was seen to be covered with a foul, viscid, muco purulent substance, continuous in descent from the naso pharyngeal space The expired air had imparted to it a disgustingly fetid odor On rhinoscopic examination the naso pharynx was found to be filled with foul and rotten crusts, which necessitated thorough removal as a prerequisite to further inspection of the parts While using the post-nasal syringe for this purpose, I noticed that only a minute quantity of fluid passed through the left nostril, and none emerged unless the exit of the right side was held closed

After syringing, an imperfect image only was obtainable—as the patient gagged upon the slightest provocation—sufficient, however, to discern an almost total occlusion by *something* of the left choana Efforts to pass a probe through from the anterior aperture failed, nor would Bellocq's canula or a Eustachian catheter penetrate, all striking an obstruction far back described, by the patient, as a tender point The finger introduced *per os* felt an impediment in the left posterior aperture

On the following day I employed, successfully, Voltolini's uvula holder, to withdraw the soft palate from the pharyngeal wall, and obtained a much better view, and by the third day, the patient had become so tolerant to instrumental manipulation that I could get a perfect rhinoscopic image A tense membrane covered the left choana almost completely Its free edge was thin and sharp, and approached so near to the septum that, as seen in the drawing, only a very small chink remained between it and the septum narium The left ostium tubæ could not be seen, the membrane evidently lying behind the Eustachian orifice, and so intercepting its image

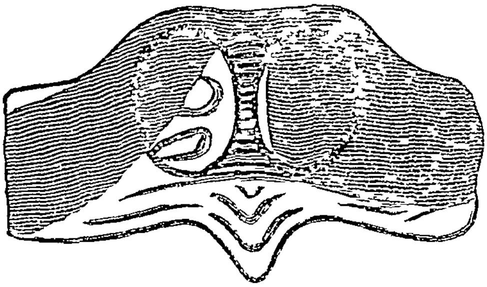


FIGURE 1

Guided by the rhinoscope, I passed a properly curved probe through the mouth, into the naso pharynx, and through the chink between the membrane and septum The edge of the membrane could be pushed backward by the probe, and was then seen and felt to be tense and from one to two millimetres in thickness Efforts were again made to pass several sizes of variously curved probes and bougies through the naris from the anterior aperture into the pharynx, and finally a small Mercier urethral catheter penetrated the chink and emerged into the mouth

The choana upon the right was partially covered by a membrane which extended about half way across the aperture As seen in the drawing, Fig 1, it intercepted the view of the superior turbinated body, the outer half of the middle turbinated body, and the right ostium tubæ This membrane was much thicker and less tense than that upon the left side

Treatment —Incision and consequent removal of these membranes was, evidently, the only effective remedy, and the galvano cautery knife electrode suggested itself as the means best adapted to the end The patient was practiced daily for one week in the use of the rhinoscope and introduction of instruments A flexible silver probe with a handle attached, was bent by numerous trials to exactly the proper curve to pass readily, *via* the mouth and naso-pharynx, into the chink upon the left side and to pick up the edge of the membrane A straight knife electrode was then made to conform to the same curve, and lastly, this instrument, with all attachments, handle, cord and battery, made several trial trips to the desired locality

---

[1] Read before the Chicago Medical Society, July 20, 1885

First Operation, Dec 13th, 1884 All being in readiness the patient held his own tongue by means of Turck's tongue depressor With the left hand I held a small rhinoscopic mirror in position and, guided by the image, introduced the properly curved electrode, holding the handle in the right hand, the cords coming over the right shoulder from Flemming's galvano cautery battery With this instrument one can make and break the current either by means of a treadle or by a button in the handle, but in order to avoid all unnecessary finger or pedal movements, as tending to unsteadiness, an assistant was in readiness to turn on the current at the battery I introduced the knife end of the electrode, one half inch long, through the chink and pressed its edge against the membrane backwards The patient at this moment retracted the soft palate shutting off all vision for a moment, but thanks to previous training, when told to relax all, he let the velum fall, again bringing everything into view At a word the current was made at the battery, the knife end became, in an instant red hot and the membrane was incised without bleeding and without sufficient pain to cause the patient to wince In another instant the current was broken and the electrode, cooling in a few seconds, was withdrawn

On examination I was myself somewhat astonished at the thoroughness of the work,—the size of the aperture produced I had hardly expected to accomplish so much, but the matter is readily understood The membrane being tense at its edge, upon incision it retracted from each side leaving an opening the size of which is represented in the accompanying drawing

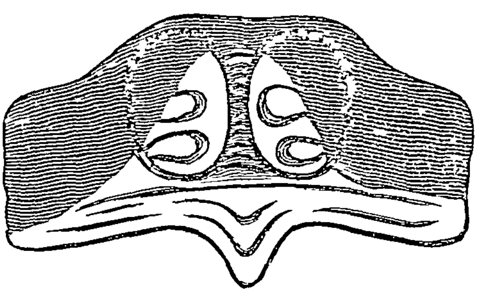


FIGURE 2

The delight of the patient when he discovered that he could again breathe through that nostril was a pleasure to behold, and from that moment he has been completely relieved of all cephalic symptoms, including the left sided deafness

I found the floor of the nose, the septum and the turbinated bodies, thickly incrusted with horribly fetid cheesy masses, the accumulated, decomposed and dessicated secretions of years These were so firmly adherent that they could be detached only by means of a probe during a period extending over several days Their presence for so many years served to excite a bad naso pharyngeal catarrh which, since the removal of the cause, has vastly improved under treatment, but as the disease in the pharynx, and elsewhere to a less extent, had progressed to the atrophic stage, complete alleviation of all catarrhal symptoms is scarcely to be hoped for

On Dec 19th, I operated a second time, passing the electrode beneath the remaining edge of the membrane incising and still further enlarging the aperture After a third operation on Dec 29th, the left ostium tubæ became visible in the rhinoscopic mirror, the membrane having been so far removed as to cease to cover the Eustachian orifice, and two or three more slight touches served to completely obliterate the occlusion Upon the right side four similar operations were performed with a like satisfactory result so that now both posterior nares are widely patent and in an approximately natural condition

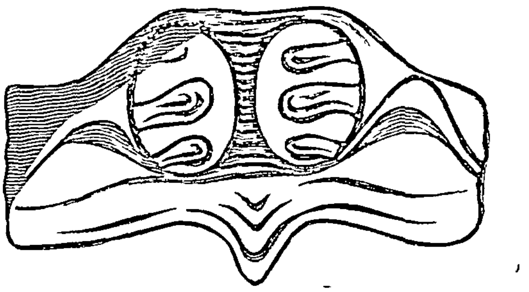


FIGURE 3

It is probable that atresia of the posterior nares is by no means so rare as the few reported cases and the omission of all mention in many treatises might lead us to suppose I have seen the reports of but two cases occurring in the adult one by Voltolini,[1] in which prolonged suffering had been occasioned by a total occlusion of the right choana, the condition being revealed finally upon rhinoscopic inspection, and its removal accomplished by the galvano cautery, the other by Pomeroy,[2] of complete osseous obstruction of the right nostril occasioned by a process of bone extending from the posterior extremity of the inferior turbinated body The operation in this instance was by means of the burr-drill and surgical engine, the bony plate being thus perforated

Records of cases occurring in infancy are more numerous, doubtless because the active interference with the nursing function necessitates one of two things,—either a correct diagnosis and an operation, or death and an opportunity for post-mortem examination Ronaldson[3] reports the case of a female child who died very soon after birth from inability to breathe through the nostrils The posterior nares were found to be occluded by a thick membrane Luschka's[4] case occurred in a female child and the openings were closed by bone Opportunity for an autopsy offered also in this instance The bony framework was formed on both sides from the horizontal plate of the palate bone, extended upwards to the inferior face of the sphenoid bone and to the median line joining its fellow of the opposite side Betts[1] reports a similar case in a fœtus of seven months

---

[1] Die Anwendung der Galvano Caustik Wien 1870 pp 240 262

New York Medical Record 1881 XIX 652 Diseases of the Nose, by Clinton Wagner p 252

[3] Edinburgh Med Jour 1880 XXVI 1035

[4] Schlundkopf der Menschen 1868 S 27 Mackenzie Diseases of the Throat and Nose Vol II p 467 Cohen Diseases of the Throat and Nasal Passages p 386

Cohen recognized the lesion in a young infant troubled with difficulty in suckling, dyspnœa and frequent suffocative paroxysms He operated and saved the life of the child Emmert[3] operated successfully on a boy seven years old, who had bony occlusion of both choana He had been nourished only with great difficulty when an infant, and he was subject to frequent suffocative attacks Wilkinson,[4] also, reports a similar case in a patient six years of age

In all of these cases the malformation was congenital, and it is most likely that such is true in the case of Mr E He has never suffered from any violent acute or chronic inflammation or ulceration sufficient to develop adhesions, even if the lesion were of the nature of an adhesion, which it is not Moreover, it is difficult to conceive of the complete development of such membranes *extra utero*

But he experienced no inconvenience until thirteen years ago Upon this point he has been carefully interrogated, and we must seek an explanation Is it not probable that in earlier years the membrane upon the left was relaxed and less complete, similar in condition to that which now existed upon the right, there remaining upon both sides apertures sufficiently large for all practical purposes? and that later it underwent contraction, became thinner, tense, and sufficiently extended to cover the choana? The left membranous fold was composed chiefly of a duplicature of mucous membrane, with possibly some connective tissue and muscular fibres interlying in the thicker portion towards the outer border The right structure contained considerable muscular tissue As no osseous malformation existed, it is probable that the membranes sprang simply from the soft parts Upon the left the attachments were, apparently, to the mucous lining of the superior posterior edge of the vomer, the inferior surface of the body of the sphenoid bone, the left pharyngeal wall behind the Eustachian orifice, and the superior posterior surface of the velum palati Upon the right they included only the inferior surface of the body of the sphenoid and the right pharyngeal wall behind the Eustachian orifice

The means employed to effect the removal of the membranes deserve some consideration It is but one of many cases of nasal and pharyngeal surgery wherein I have found the galvano cautery of the utmost utility I do not say that it was impossible to have made the incision with a properly constructed bistoury, but to have done so from behind would have been a difficult if not dangerous procedure, and if attempted from in front one must have worked in the dark The galvano cautery electrode being a dull instrument, could be introduced, withdrawn and reintroduced, without danger to the patient from gagging, until the point was brought into exactly the desired position, when in an instant it could be converted into a cutting instrument, and in another second reconverted into its harmless self to be withdrawn Little or no bleeding results, and the pain is infinitely less than would be supposed

The battery which I employ is manufactured by Otto Flemming, of Philadelphia, from suggestions furnished by Carl Seiler It has many advantages over any other that I have seen

70 Monroe St , Chicago, July, 1885

NEURO-RETINITIS ALBUMINURICA[1]

BY W CHEATHAM, M D ,

LECTURER ON DISEASES OF THE EYE, EAR AND THROAT IN THE UNIVERSITY OF LOUISVILLE

Having seen ten cases of this affection in my ophthalmic practice, I have thought it well to report them to this Society, with illustrations, by means of the magic lantern, of the appearance of the fundus oculi with its changes, as distinguished from the normal eye The ophthalmoscope in the diagnosis of diseases of the kidney I regard as an extremely important instrument In five of the ten cases I have seen, no disease of the kidneys had been suspected by the family physicians, although they were all thoroughly well-informed practitioners

Case 1 —While examining school children in New York to see the effect of study on their eyes, one of them, whose vision was $^{0}/_{0}$ or perfect, had the most marked neuro-retinitis albuminurica I ever saw His physician, one of the leading men in New York, had never suspected kidney trouble, on examining the scholars two years later, he had in the interval died of disease of the kidneys

Case 2 —Some years ago, during the life of Dr Foree, of Louisville, he called me in to see a married woman, at about the seventh month of her pregnancy Rapid loss of vision was her only symptom The ophthalmoscope showed most marked neuro retinal changes indicative of disease of the kidneys Convulsions and death soon followed

Case 3 —Mrs R , a primapera, in her eighth month of pregnancy, lost the vision of both eyes rather suddenly there was not even perception of light when I saw her Early in her ninth month of pregnancy she gave birth to quite a large child The ophthalmoscope revealed neuro-retinal changes, such as are seen in affections of the kidney Vision in one eye commenced to improve rapidly after her confinement, and continued to do so until it was perfect Vision of the other eye remained zero, the nerve and retina becoming atrophied

Case 4 —Symptoms and results as in case 2

Case 5 —Miss B , æt 14, had noticed for some weeks that the sight of her left eye was failing Dr B , her physician, referred her to me Her vision in left eye was zero Vision of right eye = $^{20}/_{20}$ Fundus perfect Fundus of left was a perfect picture of neuro-retinitis albuminurica She had no œdema of extremities or face, no headache, no nausea, no pain in the small of the back. Pulse 121 and full, respiration 20. She suffered from dyspnœa on going up stairs rapidly. I referred her back to Dr. B. for further examination. He found both albumen and casts in urine. Dr. B. put her on treatment, milk diet, etc. In five weeks the fundus had improved wonderfully, and vision increased to $^{5}/_{10}$, or half of perfect. Miss B. is a very well developed girl, and had had no sickness recently.

---

[1] Arch de Toxicologie September, 1876 Cohen Diseases of the Throat and Nasal Passages, p 385

Loc cit. p 385

[3] Lehrbuch der Chirurgie, Stuttgart, 1853, Bd II S 355 Cohen Loc Cit. p 385

[4] Clinton Wagner Diseases of the Nose, p 223

[1] Read before the Kentucky State Medical Society, June 25 1885

In all of these cases the first symptom was the loss of vision, with no other symptom that would have attracted the attention of the physician. Many cases have been reported in which the eye symptoms preceded for some weeks the albumen and casts. Of course in these cases the ophthalmoscope is invaluable. Such cases would indicate that the disease is improperly named. They appear also to support Sir William Gull's theory, that Bright's disease originates as a disease of the arterioles, not only of the kidneys, but of the whole circulatory system. There is a case on record in which the left eye alone, of a patient 43 years old, was affected with all the subjective and objective symptoms of parenchymatous nephritis. At the autopsy, the right kidney was absent, its place being occupied by a hypertrophied lobe of the liver; there was nothing to indicate that there had ever been a right kidney except the presence of a supra renal capsule. The left kidney (remember it was the left eye that was diseased) was in its normal position, was considerably hypertrophied, and had the characteristics of the large white kidney of parenchymatous nephritis. Cases of unilateral retinitis albumenurica are not very common. Case 5 is the first I ever saw. The right eye of this patient is, and has been all along, perfect. Schweigger says: "It always affects both eyes, although not always in the same degree." The changes observed in retinitis albumenurica are considered by Liebreich as so constant in this form of inflammation, that Bright's disease may be diagnosticated with certainty by the ophthalmoscope.

Sometimes in what is known as descending neuritis, the symptoms very closely resemble those of nephritic retinitis. What are the changes seen in nephritic retinitis? Besides the usual symptoms of neuro retinitis, such as hyperæmia of nerve and retina, we find grouped around the macula lutea, white spots arranged in a stellate form, and looking very much as if some one had splattered white paint on the surface with a brush; this is in the earlier stages. Later the spots unite in a large, white glistening spot, surrounding the optic nerve, often not extending entirely to it, and reaching as far as the equator. Dipping in and out of this white substance, can be seen the blood-vessels, which have here and there broken down, resulting in hæmorrhages into the retina.

The three symptoms most characteristic of nephritic retinitis are: the bright stellate spots around the macula, the white mound surrounding the nerve, and the spots of hæmorrhage. The choroid and vitreous are often involved. Vision varies greatly. One of the worse cases I ever saw (Case I) reported, had perfect vision. Vision is very rarely reduced to zero. Schweigger says: "This form of retinitis may be developed in all cases in which albumenuria has existed for some time. This is most frequently the case in chronic Bright's disease; still the existence of retinal disease has also been demonstrated in connection with croupous nephritis, with amyloid degeneration of the kidneys and in the passive hyperæmia of the kidneys in pregnancy."

Retinal disease occurs in about seven per cent. of all cases of Bright's disease. Occurring most frequently in the most insidious form of Bright's disease (the cirrhotic), it makes the ophthalmoscopic examination, therefore, the more important.

Let us for a moment glance at the pathology of the changes observed in retinitis Brightii. The hæmorrhages are the result of fatty degeneration of the coats of the vessels. The striated appearance of the infiltration into the retina and optic nerve is the result of the formation of the connective tissue that support the nerve fibers. The large, white surface surrounding the optic nerve, and the stellate spots around the macula, depend upon fatty degeneration of the cellular and connective tissue elements of the retina, more especially of the external granular layer, with exudation into the retina. The stellate appearance at the macula, is due to the peculiar anatomical arrangement of the radial connective tissue fibres at the yellow spot. The optic nerve fibres also often undergo sclerosis, and are seen in groups of small glistening spots, which are of great importance, especially as to prognosis. They closely resemble the spots of connective tissue fatty degeneration, but are differently located, being more superficial, or in front of the blood vessels, the latter being in the external granular layer, or back of the blood vessels. Often changes occur in the nerve elements of the internal layers. The cheroidal changes observed are round masses of sclerosed substance, corresponding to the degenerated portions of the retina (Virchow). A peculiar embolism of the fine ciliary arteries has been noticed. Proliferation of the connective tissue of the adventitial coat of the retinal vessels often occurs, as seen by bright stripes accompanying the vessels.

The connecting link between the disease of the kidney and that of the retina has not been satisfactorily demonstrated. Some have supposed it to be due to impairment of nutrition, others to the urea, and others again to the albumen. There are many cases on record that upset all these theories.

The best prognosis is afforded in these cases, following the exanthemeta, typhoid fever and the advanced stages of pregnancy. No special treatment to the eye is indicated beyond rest and avoidance of bright lights.

CONCUSSION OF THE BRAIN, FOLLOWED BY FATAL MENINGITIS.

BY H. MOULTON, M.D.,

OF STUART, IOWA.

On the afternoon of June 13, two boys, aged each about fifteen years, were fighting each other in rather close quarters, when one drew from his pocket a heavy knife, closed, and with a short, quick, upward stroke, he inflicted in the left temporal region of the other a wound, from which blood poured freely The bystanders, thinking the blow too light to have produced a serious injury, referred the hæmorrhage to the nose When I reached the spot, a few minutes later, blood still flowed encouraged by the injudicious local use of water

Hæmorrhage being checked by pressure, the boy fainted Soon reviving, he was brought to my office, where the wound was dressed The sharp corner of the knife handle had made, not a deep cut, in the mass of temporal muscle, about one inch above the mid point of a line drawn from the external canthus of the eye to the external auditory meatus There was no sign of fracture, nor symptom of concussion or compression, and there was no paralysis The pupils of the eyes were slightly dilated, otherwise normal The boy did not lose consciousness, nor fall or even stagger after the blow He was pale and weak from the loss of blood, complained of slight frontal headache, and vomited once before leaving the office At 6 P M, one hour after the accident, he walked with some assistance to a carriage, and was taken home At this time his temperature was normal, and pulse weak and moderately accelerated During the evening he vomited, had a chill, lasting a half an hour or so, became feverish, and passed a restless night, with some delirium

On seeing him next day, at 9 30 A M, the temperature in the axilla was 104° F, respiration 28, and the pulse not very vigorous at 120 per minute The head ached, the skin was dry, the eyes normal in appearance, and the special senses not perverted The patient was restless in bed, but complied intelligently with all my requests and made known all his wants Owing to the recent free bleeding, depletory measures were not adopted, but cold to the head and sponging of the body were ordered, and a single 5 gr dose of quinine administered

1 30 P M —Temp 104° F, resp 30, pulse 120 Patient was more delirious, and had a mild general convulsion

4 P M —Temp 104 2°, resp 32, pulse 130 Conjunctivæ were now congested, and the pupils of the eyes contracted, but sensitive to light Delirium continued, and there had been occasional spasm of some of the muscles of the face and forearm Large doses of bromide of potassium had been given, and these symptoms soon subsided Six grains of calomel were administered at this time

6 30 P M —Temp 105° F, pulse 130 resp rapid Patient was put into the wet pack, and at 8 o'clock had a temperature of 103 5° F He was now rapidly becoming unconscious, and soon was in a state of complete stupor

During the night, under the use of cold and the ice cap, the temperature ranged from 103° to 104° F The pulse became more feeble, and respiration rapid and shallow There was some tonic contraction of the flexors of the forearm The fæces and urine were passed involuntarily into the bed

June 15, 7 A M —Temp 104 5° F, resp 40 pulse 138 Hands and feet cold, skin moist, and the pupils of the eyes irresponsive to light

10 A M —Cyanosis developed, with the pulse imperceptible at the wrist

At 12 M, 43 hours after the receipt of the injury, death took place from apnœa

The plan of treatment followed was, to reduce temperature by sponging the arms, neck and trunk, and by the wet pack, to reduce temperature and lessen local inflammation by cold to the head, using first simple cold water, afterwards an ice cap, to lessen intra cranial congestion and quiet nervous excitement by the use of large doses of bromide of potassium, and to strengthen the heart by the administration of digitalis begun early Consultation was had during the progress of the case, with Dr J H Kersey

At the autopsy, an account of a former unfortunate circumstance occurring in the practice of another, we were enjoined not to remove the calvarium and limited to an examination at the seat of injury The wound was laid open and found to penetrate about half way to the skull, through the muscles and fascia After dissecting up a flap from before backwards, the skull presented no mark of violence The trephine, applied over the anterior inferior angle of the parietal bone, exposed the dura mater and the branch of the middle meningeal artery uninjured There was no extravasation between the dura and the bone A finger passed in at the opening, and swept around as far as it could reach, detected no sign of fracture of the internal table of the skull The dura was but slightly congested Underneath it were a number of small blood clots which were removed Others were brought into sight by pressing aside the brain substance, but no large ones appeared The pia mater and superficial brain substance were intensely red and congested and tumid

In the light of this limited examination, the conclusion was that the vessels of the pia mater were ruptured by, and a general meningitis followed the concussion, and that this result was favored by great intra cranial congestion, due to excitement and the heat of the day There may have been other injury to the brain which we could not see Mr Holmes would place this among "cases not classifiable " in which the usual symptoms of concussion are absent and hæmorrhage is not sufficient to produce compression, but in which a fatal injury is done, and "some laceration of the brain or extravasation into the membranes appears to have been always found "

Stuart, Iowa, July 8th, 1885

MEDICAL PROGRESS

ANATOMY AND PHYSIOLOGY

THE ELECTRICAL EXCITABILITY OF THE BRAIN —This is a subject on which M VULPIAN made a report to the Académie des Sciences, on March 23 The doctrine of the cortical motor localisations depends on two kinds of experimental proof, one being the effects of destruction of cortical regions, the other the motor effects of electrisation of these regions The latter, the only one which Vulpian has examined experimentally, are of value only when the motor effects in question are manifested in entirely different ways, according as the electrisation is made on the cortical gray substance alone or in the subjacent white substance. This difference in the experimental results is admitted by those who believe in the cortical excitability of the brain. They hold that the cortical layer, in the motor regions, is more excitable than the underlying fasciæ, for a faradic current which is sufficient to cause movements when it acts on the cortical region, the motor centre of the posterior limbs for example, is not capable of causing this same motor reaction when this region of the cortical gray substance is excised and the current is applied to the underlying white substance. Without doubt, says Vulpian, but the operation made to disclose the white fibres diminishes their excitability by the amount of traumatism and hæmorrhage which it causes. To avoid this he excites the white substance by means of a copper wire covered with gutta percha except at its very point, by inserting this through the gray substance, and exciting the white fibres while they are intact. He shows that they are much more easily excited than the cortical layer.

Another difference consists in the fact that energetic and prolonged electrical irritation of the excitable points of the cerebral cortex causes epileptiform attacks, which never occur when these excitations are made on the corresponding white fibres. In such an experiment as the preceding Vulpian has always, by irritating the white fibres, caused a violent and prolonged epileptiform attack, and this even with a current more feeble than that necessary to cause the same reactions when applied to the cortical gray substance. Vulpian therefore thinks that he is authorized in saying that the experimental arguments, by the aid of which it has been attempted to prove the motor excitability of the cortical gray substance of the cerebrum in certain determined points, are deprived of all value, and do not support the hypothesis of cerebral functional localisations. It should be said that the nerve fibres which convey cerebral motor incitations to this or that point may escape from the cerebral cortex without the necessity that this point should be a centre of action of these fibres.—*Revue des Sciences Medicales*, July, 1885.

MATERIA MEDICA AND THERAPEUTICS

PARTHENINE—A NEW REMEDY.—DR. JOSÉ RAMIREZ TOVAR gives, in *La Cronica Medico Quirurgica*, of Havana, the results of his experiments with parthenine, an alkaloid derived from parthenium histerophorus. One of the first cases was a strong and vigorous woman of 34 years, who suffered from an insupportable facial neuralgia, which became worse at a certain hour every day. One gramme of parthenine was ordered, divided into ten papers, one to be taken every hour. She began to feel relief after taking three of the papers, and the next day passed without experiencing the usual exacerbation. Small doses were recommended afterwards to sustain the action of the first doses. She disregarded the advice, and as a result, she returned on the fifth day again complaining of the neuralgia, but this time not so severe as before. A few more doses of the parthenine cured the affliction, for she had no attack during the succeeding five months. Two cases of intermittent fever were also successfully treated with parthenine. A little child who had suffered for seventeen days irregularly from fever, drowsiness and anorexia, and who had derived no benefit from quinine, showed marked improvement in twenty four hours after using parthenine, and in three days the temperature was normal. The results in all of Dr. Tovar's cases have been so striking that he feels confident that parthenine, if it come into general use, will not disappoint the hopes that have been built upon it.—*Therapeutic Gazette*, May, 1885.

MEDICINE

SYPHILITIC GUMMATA OF THE LARYNX.—Syphilitic gummata of the larynx are not so rare as generally supposed; they manifest themselves singly or in a multiple infiltrated form. The epiglottis, the aryteno-epiglottic fold, the arytenoid cartilages, and the inferior vocal cords constitute their seat of predilection. Tobacco, alcoholic drinks, speaking, and singing are the principal causes which determine the localization of gummata upon the phonating organs. These lesions occur with equal frequency in both sexes.

Gummata are either superficial (gummous laryngitis, properly so called) or deep (chondritis, perichondritis). We divide gumma into four stages: of formation, of softening, of ulceration, and finally of reparation. Functional symptoms, and especially signs furnished by the laryngoscope, characterize the the disease during these four periods.

The first stage is characterized by hoarseness, by slight pains, and by a redness and small indurations which are revealed by the laryngoscope. The second stage is characterized by the same signs, and additionally by an engorgement of the cervico maxillary glands and the development of gummata exhibited by the laryngoscope. The third stage is characterized by a puffiness of the region of the neck, by pain, increased on pressure and by deglutition, by hoarseness, raucity of the voice, and aphonia. The laryngoscope shows an ulceration of the larynx of variable extent; its edges are perpendicular, with a peripheric areola and œdema of the aryteno epiglottidean region; the ulcerated base is yellowish and covered with a thick, grayish matter.

Finally, the fourth stage is characterized by cicatrices and all the functional signs which accompany them. The diagnosis is quite difficult during the ulcerative stage of the gumma, because the ulceration may be confounded with all other ulcerations of the larynx. Still the antecedents of the patient, the ganglionic engorgement, the localization of the lesion and of the neighboring œdema, the laryngoscopic examination and, if necessary, specific treatment, will elucidate the diagnosis.

Syphilitic gummata are less serious during the first two stages, and by appropriate treatment their resorption may be effected without any unfortunate consequence Ulcerating gummata are, on the contrary, very grave, not only on account of the immediate functional troubles which they provoke (œdema), but also from the stricture which they may leave as a result

The treatment differs in no respect from the ordinary treatment of gummata in general The results obtained by the administration of the syrup of Gibert will be much more satisfactory when this medicament is promptly given The reparative process may be hastened by cauterizations The œdema may be combated by cauterizations with chromic acid in solution (25 to 50 per cent) and by scarifications

If these means fail, it may be necessary to have recourse to tracheotomy, which, done promptly, gives good results The strictures may be combated by dilatation or by incision (Isambert) and if necessary, tracheotomy —Dr George C Latouphis, *Th de Paris*, 1884, *Journ of Cutan and Vener Diseases*, July, 1885

The Treatment of Epilepsy —Dr Charles K Mills says, in a paper on this subject The way to treat epilepsy medically is to simply have a plan of treatment, and carry it out over a series of months or years I would, for instance, first put a patient upon a single bromide, say ten or fifteen grains three times a day, to be increased until a decrease in the number and severity of the paroxysms was produced I would keep him upon this perhaps for a month, and then use the mixed bromides, or some combination of bromides with other drugs, preferably the bromides, arsenic and conium prescription, watching the condition of the patient, and, if necessary, putting him on cod-liver oil, quinine and iron With reference to nitrates, bromates, etc, there is probably some chemical or chemico physiological reason for their inefficiency The *ites* and *ates* would probably *never* give as good results as the *ides* I further agree with Dr Pepper (*Medical and Surgical Reporter*, January 12, 1884) that close attention should be paid to every point in the daily life of an epileptic—to diet, regimen, rest, and hygiene, but I do not with my present experience, believe that a genuine case of thoroughly-developed epilepsy can be cured, or even greatly benefited without drugs

Among the surgical and external means of treatment which I have successfully used are excision of cicatrix, removal of neuroma, actual cautery, and blistering to the neck or head I do not use counter-irritation to the scalp, but am a strong believer in the actual cautery, used after Brown-Séquard's method, to the nape of the neck —*Therapeutic Gazette*, Feb, 1885

Alum in Purulent Ophthalmia —Mr John Tweedy, speaking of the recommendation of alum solutions to be used on the appearance of any discharge from the eyelids from young infants, says Though alum is one of the commonest remedies for conjunctivitis, its use is, in my opinion, not unattended with danger, whenever there is any chance of the cornea being abraded, eroded, or ulcerated In conjunctivitis, and especially in purulent conjunctivitis, one or other of these lesions is seldom absent The danger is that the solution of alum, gaining access to the corneal cement, will dissolve it, and thereby facilitate perforation of the cornea Other medicaments, equally efficient as alum, are free from this fault—viz, chloride of zinc, perchloride of mercury, boracic acid, etc — *Brit Med Journ*, July 4, 1885

SURGERY

Treatment of Diabetes Insipidus —Of the various drugs which are held to exert a curative influence upon diabetes insipidus, ergot has been successfully employed by various practitioners, such as Da Costa, Macaulay, Williams, and Lacy (*Schmidt's Jahrbucher*, March 10, 1885) Da Costa noted a very decided improvement under its use in five cases, and attributes this effect to capillary contraction in either the kidneys or nervous centres Given in a dose of one to two drachms of the fluid extract three times daily, the drug causes rarely any inconvenience Valerianate of zinc and the tincture of valerian seem likewise to induce a favorable termination of this affection, if persisted in for a sufficient length of time Such is the testimony of Lunin, Prior, and Cole, who used these drugs in a number of instances Kennedy prefers the dilute nitric acid (f ʒ j to f ʒ v pro die in water), though admitting that this drug is apt to cause unpleasant after-effects, which are occasionally of sufficient gravity to forbid its continuation Althaus and Clubbe found protracted faradization of the renal zone or galvanization of the medulla oblongata to also give satisfactory results

OBSTETRICS AND GYNÆCOLOGY

Operative Treatment in Pruritus Vulvæ — Otto Kustner (*Centralbl f Gynäk*, March 14, 1885) gives four cases in which he has obtained a cure by excising the parts which are the seat of the pruritus According to him, in the majority of the cases of pruritus, there is a primitive neurosis, but in many cases it consists of an abnormal irritation, which is secondarily exhibited by the abnormal irritability of the vulvar mucous membrane The ordinary causes of this abnormal irritability are particularly, the products of the catarrhal secretions of the uterus and vagina, as this fluid, by constantly bathing the vulva, produces the first symptoms If called early, the pruritus can be relieved by relieving the uterine or vaginal catarrh But if the catarrh and its resulting pruritus have become inveterate, the pathological irritability of the vulva reaches a point which, even after the cure of the catarrh, through the physiological irritation, the rubbing of the parts against each other, suffice to keep up an insupportable itching This natural irritability is increased secondarily by the modifications undergone by the vulvar mucous membrane, by the development of sudamina, of mucous sclerosis excoriations, eczema, herpes, furuncles etc It is in these cases that the operation is indicated It consists in excising the affected parts, and uniting the lips of the wound by sutures —*Archives de Tocologie*, June, 1885

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE, INCLUDING POSTAGE
PER ANNUM IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned. When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters.

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, AUGUST 8, 1885

WHAT SHOULD BE DONE

A Special Meeting of the Committee of Arrangements for the Organization of the International Medical Congress, of 1887, having been called for September 3, it becomes the duty, not only of the members of the Committee, but of all who regard the interests of the profession and the success of the Congress as superior to mere professional pride and prejudices, to aid in securing such action at that meeting as will be satisfactory to all fair minded and honorable members of the profession both at home and abroad. This should be done, not with the idea of compromising with, or conciliating some dissatisfied parties, but simply as work needed to render more complete such parts of the rules as were left unsatisfactory at the previous meeting of the Committee, and to fill such vacancies in the offices of the Congress and of the Sections as have been made necessary by the declination of individuals to serve.

The only two items connected with the rules adopted for the organization and government of the Congress, that require further consideration, are those relating to the membership of the Congress, and an Executive Committee of the same, to perform the duties enjoined in *Rule 6* of the old programme. The membership of the Congress was provided for in *Rule 1* of the original programme, and as adopted and published by the Committee as first organized is as follows:

"RULE 1. The Congress shall be composed of members of the regular medical profession, and of such persons as may be specially designated by the Executive Committee, who shall have inscribed their names on the register of the Congress, and shall have taken out their tickets of admission. As regards foreign members, the above conditions are the only ones which it seems, at present, expedient to impose.

"The American Members of the Congress shall be appointed by the American Medical Association, by regularly organized State and local Medical Societies, and also by such general organizations relating to special departments and purposes, as the American Academy of Medicine, the American Surgical Association, the American Gynecological, Ophthalmological, Otological, Laryngological, Neurological, and Dermatological Societies, and the American Public Health Association, each of the foregoing societies being entitled to appoint one delegate for every ten of their members. The members of all special and subordinate Committees, appointed by the General Committee, shall also be entitled to membership in the Congress."

The only legitimate object to be accomplished by altering this rule, was to guard against the admission of delegates from such State and local Medical Societies as had by direct and persistent action repudiated the National Code of Ethics, and arrayed themselves in opposition to the National and State Medical Societies throughout the country. It is well known that this had been done *only* by the old Medical Society of the State of New York and a few of the County Societies of the same State. Consequently the object sought could have been attained fully by inserting a few words in the second and third lines of the second paragraph of the *Rule* as quoted above, making the three first lines read thus: "The American members of the Congress shall be appointed by the American Medical Association, by *such* regularly organized State and local Medical Societies *as are in affiliation with it*, and also by such general organizations," etc., leaving the remainder of the rule just as before.

There was no necessity for going further and dropping out of the rule all the National Organizations for the cultivation of special departments in medicine, for none of those named in the *Rule* had ever taken any action repudiating the Code of Ethics or any part of it, so far as our knowledge extends. And if the American Membership of the Congress is to be a representative body, consisting of delegates fully representing all legitimate interests of the profession throughout the country, there can be no more liberal and just basis for such representation than that provided for in the original rule, with the added limitation in regard to State and local Medical Societies, just suggested.

After the most mature deliberation we prefer the revision of the rule here suggested, to that proposed by the Council of the New York State Medical Association, at a meeting in Utica, July 7, 1885, which is as follows

"That the American Membership of the Congress be constituted of delegates, who shall be entitled to participate in the business and scientific proceedings, and of members who shall be entitled to participate only in the scientific proceedings of the Congress, that the delegates may be appointed by the American Medical Association and by State and local organizations in affiliation therewith, in the proportion of one delegate for every ten or fraction of ten members of the organizations thus represented, that members of the regular medical profession of the United States may become members of the Congress by registering as such, and taking out tickets of admission"

The objections to this plan are 1st That two classes of members in the same body, with unequal privileges, is not only distasteful to many, but a positive inconvenience in conducting the proceedings in such a manner as to keep up a distinction between the business and scientific matters to be acted upon from day to day 2d That opening the doors to all members of the regular medical profession of the United States, practically converts the American part of the Congress into a mass meeting of that part of the profession living within a radius of one or two hundred miles of the place of meeting, much to the disadvantage of those living at greater distances

We call attention to the foregoing propositions for revising the rule regulating the membership of the Congress, that they may be fairly considered before the next meeting of the Committee, and acted upon as their merits indicate, without the slightest reference to the opinions or wishes of those who have manifestly entered into a concerted movement for the express purpose of factiously obstructing the proper work of the Committee The only other item connected with the *Rules*, requiring attention, is the addition of a provision constituting the President of the Congress, the Secretary General, the Treasurer, and the Chairmen of the Sections, an Executive Committee of the Congress, to take charge of its business affairs and the publication of its transactions This done, and the rule in regard to membership properly adjusted, the vacancies occasioned by the premature declination of those who had deliberately undertaken to obstruct the work of organization, should be, at once, filled with good and true men, who will lose no time in completing all the details for as important and successful a Congress as has ever been held in any of the countries of Europe

THE GAME OF BLUFF AND ITS OBJECT

Evidences that the whole movement of premature opposition to the action of the Committee of Arrangements for Organizing the International Congress, taken at the recent meeting in Chicago, was deliberately planned by less than a dozen individuals even before the Committee met, are accumulating from day to day We are already in possession of enough to obtain a verdict of guilty from any intelligent jury The plan was to follow the adjournment of the Committee, so speedily that no candid or full statement of its doings could reach the profession, by an apparently simultaneous and general denunciation of the Committee and the American Medical Association in the *Medical News*, the *Record*, and the *New York Journal*, being careful to avoid specifying any particulars, accompanied by concerted meetings of as many leading men of well known reputation as could be induced by representations essentially untrue, to join in the movement in three or four chief cities It was expected that these movements, thus suddenly developed, would prove contagious, and would induce so general a declination to serve, under what they choose to call the new organization, throughout the whole country, as to frighten the members of the Committee, or a part of them at least, so sorely, as to cause their resignation

To ensure a more certain and speedy spread of the opposition and increase the number of declinations, letters were speedily if not simultaneously dispatched to the leading appointees and parties interested, in every part of the country, announcing the meeting and the withdrawal of the twenty eight in Philadelphia, and the fact that similar results would certainly follow in New York, Boston, Baltimore and Washington These letters and the editorials in the journals just named, were careful to represent each of these little gatherings as a "meeting of *the profession* of Philadelphia," etc , and to give the confident assurance that the work of the Committee was already condemned by a large majority of the profession of the United States Without positively asserting it, the impression was made that the Committee of Arrangements had put Dr Cole in the place of Dr Flint and Dr Shoemaker in the place of Dr Billings as officers of the Congress, instead of having simply made them Chairman and Secretary of the Committee itself

Such is a brief outline of the scheme, simply a neatly planned bit of ancient Chinese warfare, in which a sudden and tremendous noise was to so frighten the enemy as to make an easy victory certain The first vigorous blow upon the *Gong* in

Philadelphia was to echo first in Boston, Baltimore and Washington, and then reverberate throughout the Union, until the trembling occasioned thereby should reach even to the opposite shore of the Atlantic.

And what was the real object to be gained by all this sound and fury founded on nothing? Was it the real intention of the authors of the scheme to permanently abandon the Congress? "Certainly not," said one of their medical friends in Philadelphia, when in familiar conversation with his companion. "They only signed that protest in order to make two or three *scalawags* who are trying to run the Congress step down and out, and they will do it." "They'll come in again all right. They only did this to get rid of those *scalawags*." It is an old saying, that "murder will out," and so will conspiracies, when their authors make letter writing a part of the machinery used in their execution. Unfortunately for the authors of the present scheme, the *Gong* chosen was one whose sound had already become familiar to the ears of the entire membership of our National and State medical organizations, and consequently it only succeeded in frightening a few editors of medical journals, and disturbing the sleep of some of our more nervous friends. In the meantime the work of organizing the Congress is progressing under the leadership of Austin Flint, Sr., for President, supported by Lewis A. Sayre and Henry F. Campbell of the original committee, and cordially sustained by three-fourths of the membership of the National and State Medical Societies of the whole country. And if the *eminent decliners* are to "come in again all right," they had better be moving in that direction soon, for another forty days will not pass before the Gong they so hastily aided to put in motion will be returning as a resistless *boomerang*, from the pathway of which they may find it difficult to escape unharmed.

DISEASE FROM BAD MEAT.

In another column we give, through the courtesy of the Illinois State Board of Health, the report of Prof. Long, of the Chicago Medical College, on the diseased meat which was spoken of in our editorial of July 25, as having caused severe illness at Momence.

It will be seen that the opinions then expressed as to the cause of the illness are borne out by Prof. Long's examination. It will be remembered that none of the symptoms in those cases were such as could be attributed to the direct influence of micro-organisms, though it is highly probable that bacteria were the indirect cause, by leading in some way, not yet known, to the formation of ptomaines.

So far as we are aware, this is the first case in which ptomaines have been systematically sought for and found by an American chemist. Great credit is due to Prof. Long for the careful manner in which he conducted his analyses in this case, more especially for his control experiments, and for the care taken to eliminate sarkin and kreatinine, which give reactions that might be misleading.

Right on the heels of this report comes the information that an epidemic similar to that at Momence, though more severe, has occurred at Porter Station, Indiana. Within three days, up to August 4, five persons have died, leaving fifteen dangerously ill, and about twenty-five others whose condition is as yet uncertain. The village of Porter is supplied with meat from Chestertown, one mile east of the Lake shore. It has been ascertained that the meat at Chestertown has not been kept in good condition, the night watchman and a physician having testified that the most unpleasant odors were emitted from the place, showing that the meat was in an advanced stage of decomposition. If possible we will give a full report, medical and chemical, of this epidemic in a subsequent issue of the JOURNAL.

SPECIAL ARTICLE

THE DISEASE AT MOMENCE, ILL.

The following is the report to the Illinois State Board of Health, by PROFESSOR JOHN H. LONG, on the Chemical and Microscopical Examination of Poisonous Meat from Momence (see JOURNAL of July 25).

The samples received were numbered 1, 2, 3, 4 and 5, of which 1 and 3 were in alcohol, and 2, 4 and 5 dry. Another sample was placed in my hands by Dr. O. C. DeWolf, Health Commissioner of Chicago, which sample was obtained from the house where the death occurred after eating the meat, and which I shall speak of as No. 6.

Preliminary examinations made with small portions of the meat showed the absence of metallic poisons and worms, the presence of which latter was first reported from Momence. In the chemical analysis I followed the Stas-Otto process, and I will add here that the ethyl alcohol, ether and amyl alcohol used in my extractions were prepared by me especially for toxicological work, and no pains had been spared in making them exceedingly pure.

Samples 1 and 2 were minced and extracted together, 3 and 5 were taken together, and 6 alone. Sample 4 was small and was used only for microscopic tests, to be referred to later. In the first alcoholic extraction from the original meat dilute sulphuric acid was used to acidify the mixture of 1 and 2, and 6, while tartaric acid was used in 3 and 5. The ether extracts from the *acid* water-solution left on evaporation slight residues, which gave, however, no alkaloid reaction. These ether washings were repeated twice in each case, and the final ones were colorless. The

SOCIETY PROCEEDINGS

THE AMERICAN OPHTHALMOLOGICAL SOCIETY

WEDNESDAY, JULY 15 EVENING SESSION

DR G C HARLAN reported *two cases of Congenital Paresis of the External Rectus*, and also exhibited and described *Boeck's Sphero cylindrical Lenses*

DR J L MINOR, of New York, reported

THE REMOVAL OF A BIT OF STEEL FROM THE LENS WITH THE ELECTRO MAGNET

M S was struck, one week before coming under observation, by a piece of steel There was a small scar in the cornea, and vision was much reduced There was clearly a piece of steel in the lens, which the doctor desired to remove at once After consultation it was thought advisable to await the development of some symptoms The patient was therefore given atropine and instructed to return if the eye gave any trouble Some time later the eye became irritable, there was considerable ciliary injection, there was haziness, and the tension was increased Cocaine was employed and iridectomy performed The shank of a strabismus hook was touched to an electro magnet, thus making it a magnet The extremity of the hook was then carried into the lens and the piece of steel at once attached itself to it and was removed Thirteen days later the eye had recovered from the operation The lens has not yet been removed

DR R H DERBY reported a case of

MAL-FORMATION OF THE UPPER LID

In this case there was a fissure of the upper lid from the angle of which a portion of skin projected in a peculiar manner

DR A MATTHEWSON, of Brooklyn, reported the

REMOVAL OF EPITHELIOMA OF THE EYE-LID BY APPLICATION OF BENZOLE AND CALOMEL

O D, laborer, 50 years of age, was seen October 3d, 1881, with tumor on the right lower lid This first appeared as a warty growth three years previously Of late it had been rapidly growing, and presented a raw, granulated surface Careful examination by an expert showed it to be undoubtedly epithelioma It was treated by frequent dustings of calomel, after brushing the surface with benzole The tumor entirely disappeared until a few months ago, when a granular spot appeared at one edge of the site of the former growth This disappeared under a renewal of the same treatment

DR H S SCHELL, of Philadelphia, reported a case of

LIPOMATOUS PTOSIS

Under this head the speaker reported four cases of ptosis from excessive accumulation of fat in the upper lids The condition occurred in young women between the ages of 18 and 25 The deformity was symmetrical, the weight of the lid causing it to cover one half of the cornea The excessive fat was removed through a horizontal incision The smallest amount taken away was 35 grains The levator regained power in from one to four weeks In one case it was necessary to repeat the operation

DR WEBSTER FOX, of Philadelphia, reported some

CLINICAL OBSERVATIONS

Case 1 *Congenital Cataract in Both Eyes Successfully Operated on in a Patient Sixty Years of Age* — H H, a negro, aged 60, presented herself at the Germantown Hospital February 4, 1884 Congenital cataract of both eyes was found The use of a four grain solution of atropia produced no dilatation of the pupils, there was simply light perception Shortly afterwards the right lens was removed and the wound rapidly healed At the end of eight days the patient could see, but could not name objects without touching them The lens of the left eye was subsequently removed The effect of the acquisition of sight after sixty years blindness was carefully described by the doctor The lens when removed were found to be of a spherical shape The optic nerve presented an oval outline

Case 2 *Recovery of Useful Vision after Eighteen Years Blindness* —R L, aged 37 years, was injured in the left eye when three years of age Two years subsequently sympathetic ophthalmia developed in the right eye, resulting in qualatative perception of light only An iridectomy was done at the Germantown Hospital in June, 1884 The media were found to be clear When admitted to daylight complained of erothropsia to such an extent that dark glasses were ordered This disappeared in the course of three months A plus 10 D spherical glass was ordered for distant use, and A plus 14 rendered near objects visible Subsequent examination showed that better vision was obtained by a combination of spherical and cylindrical lenses

DR LUCIEN HOWE, of Buffalo, read a paper on

THE PULSATING VARIATIONS OF INTRA-OCULAR TENSION AS MEASURED BY THE MANOMETER

In calling attention to the variations of intra ocular tension some attention also was given to various forms of manometer, or instruments for its measurement The earlier forms consisted simply in a U-shaped tube of glass, connected by a flexible tube to a trocar When the trocar was introduced into the anterior chamber of the eye, the intra-ocular pressure would tend to force the fluid through the tube and show the degree of pressure by a rise in the opposite column of the U-shaped tube This was imperfect, for the reason that when the aqueous humor escaped from the eye, it was at once in an abnormal condition The double manometer described by Grasser and Holzke obviated this difficulty In this, however, there was an imperfection in the trocar, which was rather complicated and liable to get out of order An improvement was accordingly suggested in having a stop cock attached to a needle of the hypodermic syringe, and this the writer found to serve the purpose much better than any other The animal best adapted to this class of experiments is the cat, on account of the deep anterior chamber

In the earlier experiments with the manometer, usual precautions were taken before making the next extraction from the alkaline water-solution, the ethereal washings here were evaporated to dryness, leaving slight residues which consisted of soluble matter from the original meat Small amounts of sarkin and kreatinine may appear here, as I have determined by parallel experiments on other meat

After expelling the dissolved ether I next treated with warm amyl alcohol, as in the process given by Uslar and Erdmann The two liquids were separated in the usual manner, and the process repeated with fresh amyl alcohol The extracts so obtained were evaporated to dryness, and the residues tested These were crystalline in No 6, and in the mixture of 3 and 5, but amorphous in the mixture of 1 and 2, and were completely, though with difficulty, soluble in hot water and alcohol They are colored yellowish red by strong nitric acid, and assume a light reddish color with strong sulphuric acid They give decided alkaloid reactions with phosphomolybdic acid, metatungstic acid, tannic acid, iodide of mercury and potassium, iodine in potassium iodide, but nothing with picric acid

Of the organic bases present in normal meat there are three which respond to some of these tests Kreatine is one of these, but its reactions with phosphomolybdic acid and metatungstic acid are to form soluble crystalline compounds, while I obtained yellowish white flocculent precipitates Besides this, in the several processes of extraction and evaporation small amounts of kreatine could be converted into kreatinine (the reverse action sometimes takes place), and kreatinine, whether so formed or already present, gives certain alkaloid reactions But the combinations with phosphomolybdic acid and metastungstic acid are crystalline, and settle out very slowly, as I have determined in parallel tests (see also Neubauer and Vogel, "Harnanalyse," 8th edition, p 15) Kreatine is much more soluble than the residues I obtained, and although a small amount of it was doubtless present, it could not deceive in the tests Another substance is sarkin, and I am inclined to think the reactions of this body have not been sufficiently considered in the discussion of the detection of animal alkaloids It gives precipitates with phosphomolybdic acid and metatungstic acid which are white and flocculent, but it seems to give nothing with tannic acid or iodide in potassium iodine, at any rate, not in solutions certainly stronger than were those under investigation

The phosphomolybdic acid precipitate with sarkin turns blue on addition of caustic alkali, and slowly dissolves As I obtained a slight blue color when I applied this test, it was necessary to eliminate sarkin before going further Nearly the whole of the residue from the sixth sample was saved for this purpose, and I precipitated the base by the method of Strecker, as given by Neubauer (*Fresenius' Zeitschr* , 1867, p 33), with ammoniacal silver nitrate A very slight precipitate was formed and filtered off, and after freeing the residue from the excess of silver and the ammonia compounds, the tests were again applied Sarkin was absent and the alkaloid reactions seemed as sharp as before, indicating the presence of a body of this character The reactions I have noted in these experiments do not correspond to those of any alkaloid with which I am acquainted, yet I think I am quite justified in affirming the presence of a body of this class It must also be mentioned that the amyl alcohol extracts gave immediate reduction tests with potassium ferricyanide (Brouardel and Boutmy, *Fresenius' Zeitschr* , 1882, p 621)

The small quantities of meat at my disposal rendered the investigation very tedious and difficult, and it is not possible to define the nature of the substance found any clearer than I have done Without doubt it belongs to the class of bodies known as *ptomaines*, but to identify it with anything discovered by Selmi, Schwanert, Brouardel and Boutmy, Gautier, or others, is scarcely possible, as the investigations of some of these observers were carried out on quantities of decomposing flesh as small as I acted upon, and the results obtained were necessarily more or less incomplete Notwithstanding recent remarkable investigations, it is yet too soon to consider any of those bodies as described with absolute certainty, and with others I would say that the whole discussion shows the necessity of extreme caution in toxological inquiries

In addition to the chemical tests described above, I have also made numerous microscopic examinations of cross and longitudinal sections of the meat A number of these were prepared for me by Dr Lester Curtis, of Chicago, to whom I must here express my thanks Sections have been made from samples 1, 2, 4, and 6, and the appearance of these indicates a diseased condition of the meat, different from that of normal specimens which I have examined The decayed appearance is not uniform throughout a section, but is found in spots, and this is perhaps more apparent in cross sections than in longitudinal In the former, groups of fibres can be found which have a loose, honey-combed appearance when seen under a high power It must be said, however, that I have examined many slides in which nothing abnormal could be found In most of the sections I find an abundance of micro organisms, some of which are very small, not more than 001 mm , while others are somewhat oval and have a longer diameter of fully double this They can be found in sections cut from the centres of the several samples, and evidently in as great numbers as in those from the outside

In his report made to the Board, Dr J H Utley states that in one case the meat had been fried in butter, and the symptoms after eating it were the same as in the other cases I consider this an important point, as showing beyond doubt that the micro organisms referred to could not be considered the direct cause of the disease At the temperature which meat frying in butter certainly reaches, all such bodies would be rendered harmless, while we have no ground for believing that substances of alkaloid nature would be made inert by the same process I am therefore inclined to think the micro organisms and poisonous substance may be looked upon as cause and effect, and I consider it probable that the symptoms observed were due to the action of the latter

SOCIETY PROCEEDINGS

THE AMERICAN OPHTHALMOLOGICAL SOCIETY

WEDNESDAY, JULY 15 EVENING SESSION

DR G C HARLAN reported *two cases of Congenital Paresis of the External Rectus*, and also exhibited and described *Borek's Sphero cylindrical Lenses*

DR J L MINOR, of New York, reported

THE REMOVAL OF A BIT OF STEEL FROM THE LENS WITH THE ELECTRO MAGNET

M S was struck, one week before coming under observation, by a piece of steel There was a small scar in the cornea, and vision was much reduced There was clearly a piece of steel in the lens, which the doctor desired to remove at once After consultation it was thought advisable to await the development of some symptoms The patient was therefore given atropine and instructed to return if the eye gave any trouble Some time later the eye became irritable, there was considerable ciliary injection, there was haziness, and the tension was increased Cocaine was employed and iridectomy performed The shank of a strabismus hook was touched to an electro magnet, thus making it a magnet The extremity of the hook was then carried into the lens and the piece of steel at once attached itself to it and was removed Thirteen days later the eye had recovered from the operation The lens has not yet been removed

DR R H DERBY reported a case of

MAL-FORMATION OF THE UPPER LID

In this case there was a fissure of the upper lid from the angle of which a portion of skin projected in a peculiar manner

DR A MATTHEWSON, of Brooklyn, reported the

REMOVAL OF EPITHELIOMA OF THE EYE LID BY APPLICATION OF BENZOLE AND CALOMEL

O D , laborer, 50 years of age, was seen October 3d, 1881, with tumor on the right lower lid This first appeared as a warty growth three years previously Of late it had been rapidly growing, and presented a raw, granulated surface Careful examination by an expert showed it to be undoubtedly epithelioma It was treated by frequent dustings of calomel, after brushing the surface with benzole The tumor entirely disappeared until a few months ago, when a granular spot appeared at one edge of the site of the former growth This disappeared under a renewal of the same treatment

DR H S SCHELL, of Philadelphia, reported a case of

LIPOMATOUS PTOSIS

Under this head the speaker reported four cases of ptosis from excessive accumulation of fat in the upper lids The condition occurred in young women between the ages of 18 and 25 The deformity was symmetrical, the weight of the lid causing it to cover one half of the cornea The excessive fat was removed through a horizontal incision The smallest amount taken away was 35 grains The levator regained power in from one to four weeks In one case it was necessary to repeat the operation

DR WEBSTER FOX, of Philadelphia, reported some

CLINICAL OBSERVATIONS

Case 1 *Congenital Cataract in Both Eyes Successfully Operated on in a Patient Sixty Years of Age* —H H , a negro, aged 60, presented herself at the Germantown Hospital February 4, 1884 Congenital cataract of both eyes was found The use of a four grain solution of atropia produced no dilatation of the pupils, there was simply light perception Shortly afterwards the right lens was removed and the wound rapidly healed At the end of eight days the patient could see, but could not name objects without touching them The lens of the left eye was subsequently removed The effect of the acquisition of sight after sixty years blindness was carefully described by the doctor The lens when removed were found to be of a spherical shape The optic nerve presented an oval outline

Case 2 *Recovery of Useful Vision after Eighteen Years Blindness* —R L , aged 37 years, was injured in the left eye when three years of age Two years subsequently sympathetic ophthalmia developed in the right eye, resulting in qualatative perception of light only An iridectomy was done at the Germantown Hospital in June, 1884 The media were found to be clear When admitted to daylight complained of erothropsia to such an extent that dark glasses were ordered This disappeared in the course of three months A plus 10 D spherical glass was ordered for distant use, and A plus 14 rendered near objects visible Subsequent examination showed that better vision was obtained by a combination of spherical and cylindrical lenses

DR LUCIEN HOWE, of Buffalo, read a paper on

THE PULSATING VARIATIONS OF INTRA-OCULAR TENSION AS MEASURED BY THE MANOMETER

In calling attention to the variations of intra-ocular tension some attention also was given to various forms of manometer, or instruments for its measurement The earlier forms consisted simply in a U-shaped tube of glass, connected by a flexible tube to a trocar When the trocar was introduced into the anterior chamber of the eye, the intra ocular pressure would tend to force the fluid through the tube and show the degree of pressure by a rise in the opposite column of the U shaped tube This was imperfect, for the reason that when the aqueous humor escaped from the eye, it was at once in an abnormal condition The double manometer described by Grasser and Holzke obviated this difficulty In this, however, there was an imperfection in the trocar, which was rather complicated and liable to get out of order An improvement was accordingly suggested in having a stop-cock attached to a needle of the hypodermic syringe, and this the writer found to serve the purpose much better than any other The animal best adapted to this class of experiments is the cat on account of the deep anterior chamber

In the earlier experiments with the manometer, was noticed that the inter-ocular tension varied with the heart's action In addition to this the writer called attention to the fact that these variations in the pressure, as indicated by the manometer, correspond to pulsations which can be seen with the ophthalmoscope in the vessels in the interior of the animal's eye In other words, if the same thing holds in the human subject, we must infer that when pulsation is seen in the interior of the eye, there is also a variation of intra-ocular tension, although not enough to be detected by the touch, or by an ordinary instrument This connection between pulsation and pressure is a demonstration of the cause of venous pulse in the eye, as explained by Donders It was also observed that after the introduction of the needle there was at first considerable pulsation, but after a short time this ceased, the eye evidently adjusting itself to the unusual condition The experiments referred to were made in the laboratory of Prof Zuntz, of Berlin

Dr Knapp reported

NINE CASES IN WHICH THE ELECTRO-MAGNET WAS USED FOR THE EXTRACTION OF CHIPS OF IRON FROM THE INTERIOR OF THE EYE

These cases were operated on during the last three and a half years In two the chip of iron was located in the iris, in one for two days, causing inflammation, and in the other for 17 years, remaining quiet until recently Both were successfully removed without deterioration of the eye In the seven remaining cases, the foreign body was in the vitreous, had produced cataract, and could not be seen In three cases the attempt to extract them with the magnet failed, and the eyes had to be enucleated In four cases, the chips of iron were brought forth at the first, second, or third introduction of the tip of the magnet In all these four cases, the recovery was smooth All four are still cataractous In two the form, size and tension of the globe is not changed, and the perception of light is good over the whole field In the two others the globe is slightly smaller and softer, and the field of vision defective, corresponding to the wound made for the extraction of the foreign body There was no irritation in any of the four eyes as long as they were under observation

Dr H Knapp discussed the use of

THE ACTUAL CAUTERY IN DESTRUCTIVE CORNEAL PROCESSES,

and cited a number of cases in which its use had been of service, and considered it a valuable measure

Dr Howe had employed this measure in three cases, and the corneal ulcer had been somewhat lessened

Dr E Williams had for the past fifteen years been in the habit of treating phlyctenular ulcers of the cornea by the application of pure carbolic acid, and had found it to act admirably

Dr O F Wadsworth had for several years been in the habit of using carbolic acid for ulcus corneæ serpens and for sluggish, painful infiltrations of the cornea In sluggish infiltration the application is preceded by scraping, and in some cases the simple scraping has been sufficient When the ulcus corneæ serpens had been severe, he did not recall that it had entirely stopped the process In a recent case, in which the acid was applied at the beginning of the affection, three applications checked the disease

THURSDAY, JULY 16, SECOND DAY

Dr W F Mittendorf, of New York, read a paper on

PNEUMOPHTHALMOS, OR AIR IN THE VITREOUS HUMOR

The entrance of air into the interior of the eye will occur at times during an operation, as, for instance, a cataract extraction In such cases the air may get into the anterior chamber, whence it can be removed with ease It is, however, entirely different when air gets into the vitreous chamber Fortunately, this accident is of such rare occurrence that so far no description of it has been given The writer has seen two cases of this kind within the last two years Both occurred in connection with injuries caused by the entrance of foreign bodies into the interior of the eye Such accidents are usually so serious that any complication of them becomes a matter of great interest The first case was that of a young blacksmith who was wounded by a piece of iron penetrating the sclera and lodging in the vitreous humor The foreign body, surrounded by a clot of blood, was found at the bottom of the eye Behind the lens and a little above it, three air bubbles were seen by means of the ophthalmoscope These appeared to be of the size of a small pea, the smallest about as large as a rape seed They closely resembled the air bubble as seen under the microscope, their centres being bright and the outlines well defined and surrounded by a sharp black border Their recognition was not difficult The foreign body could not be removed with the magnet, and it was decided to allow it to remain The eye was carefully bandaged, and the day following it was found that the air bubbles had united and were located at the posterior pole of the lens, the patient having remained quietly on his back some time before the examination While he was in the upright position the air began to rise slowly until it reached the upper part of the vitreous chamber During this trip the bubble looked oval and decidedly pointed at its lower portion, resembling oil globules as they are seen ascending in water Forty-eight hours after the accident, every trace of the air bubbles had disappeared

The second case reported was the result of drilling accident A pretty large piece of stone or iron had perforated the sclera at the lower and outer part of the eye In the semi-transparent vitreous an air bubble of the size of a hemp seed could be seen distinctly

In order to determine the exact appearance of air in the vitreous, the writer experimented upon rabbits' eyes Four of them had air introduced into the vitreous humor by means of a hypodermic syringe, and four were subjected to the introduction of oil, also, by means of the hypodermic syringe Nearly all these experiments were successful The difference between the air and the oil bubble was so marked that they could be readily diagnosed by means of the ophthalmoscope The latter were more highly re fractive, heavier in appearance, and the contour decidedly darker than the air bubbles, which were entirely colorless The conclusions reached by the author were as follows

1 The entrance of air into the vitreous body can occur only after a part of the contents of the vitreous chamber has escaped

2 It is favored by the entrance of a foreign body which makes a large gaping irregular wound of the sclera

3 In order to allow air to enter the vitreous humor, this must either be quite fluid or its anatomical arrangement must have been disturbed by the entrance of a foreign body, or the air must have been attached to the foreign body and be thus carried with it into the eye

4 The air in the vitreous humor appears like an air bubble as seen under the microscope It is more or less round, highly refractive in the centre, and has a sharply defined black outline

5 Oil globules in the vitreous present a similar appearance, but they look heavier, are not perfectly colorless, and their outlines are larger, they are also more glittering in the centre

6 Air bubbles will be completely absorbed within two or three days Their presence is not a source of great danger to the eye Oil globules last longer, but they are likewise non-irritating

DR MYLES STANDISH, of Boston, reported a case of

TUBERCLE OF THE IRIS

The patient was a girl fourteen years of age There was absolutely nothing of a specific character in the history of the patient, her parents or her brothers and sister During the past winter she was confined to bed with intense pain in the epigastrium and ascites, which were attributed by the attending physician to hepatitis No pulmonary lesion was detected At the time she came under observation, the eye trouble had existed for four weeks, but there had not been much pain or photophobia Examination showed the iris attached by its pupillary margin to the capsule of the lens, somewhat atrophied in appearance On it there was a growth, 2 mm in diameter, pink in color, with small vessels on its surface The growth projected from the iris near its ciliary border Various mydriatics were employed without any effect upon the pupil In the course of a month the growth had doubled its size Other growths making their appearance, the eye was removed

Examination after enucleation showed the vitreous, retina and choroid to be normal The lens was somewhat opaque The iris was very adherent to the capsule of the lens along its pupillary border, and also beneath the area of the principal growth There were in all, four growths, but none of them involved the ciliary body The microscopical examination by Dr Ernst, of Boston, showed the presence of giant cells and bacilli tuberculosis He considered it an undoubted case of tubercle of the iris

DR KNAPP had seen growths presenting exactly the same appearance which had disappeared under the use of specific treatment with mercury, even where there was no evidence of syphilis He had never felt warranted in making the diagnosis of tubercle in such cases, although the presence of the tubercle bacilli in this case would seem to confirm the diagnosis

DR C J KIPP reported a case of

CONGENITAL COLOBOMA OF THE IRIS, CHOROID, ETC

The patient was a woman 69 years of age She was first seen four years ago There were at that time no inflammatory symptoms, but a small triangular coloboma of the iris was found exactly in the vertical meridian The tension was above normal The patient had never seen with this eye, but it had never given pain Four years later the patient was again seen, and the eye presented the signs of inflammatory glaucoma The pain had prevented sleep for many weeks The eye was enucleated and healed promptly There was also found a large ectasia of the sclerotic, and over this the choroid and retina were wanting The ectasia extended close to the optic papule There was also a deep kettle shaped excavation of the optic nerve

DR S D RISLEY, of Philadelphia, reported a case of

COLOBOMA OF THE CHOROID ON THE TEMPORAL SIDE

A young physician consulted Dr R for asthenopia There was a considerable degree of myopia in the left eye In the right eye vision was much diminished, — $^{0}/_{80}$ The ophthalmoscope showed a large hiatus in the choroid of the temporal side, the depth of which was 3 D The speaker thought that these cases were comparatively rare

DR MITTENDORF had seen several of these excavations in the outward direction Where the coloboma was so deep it was, he thought, probably a coloboma of the optic nerve sheath with excavation of the nerve A difference of 4 D would indicate a greater defect than would correspond to absence of choroid and retina alone

DR W W SEELY read a paper on

SEROUS EFFUSION IN THE VITREOUS DUE TO MALARIA

He considered the occurrence of this complication not infrequent, and he reported one case of this affection

DR WM F NORRIS read a paper on

GREY DEGENERATION OF THE OPTIC NERVE WITH ABNORMAL PATELLA REFLEX

After an elaborate review of the literature of the subject, the speaker gave the results of his observations in cases in which the patella reflex was increased or diminished, and described three cases of grey degeneration associated with tabes dorsalis which had come under his observation While he did not hold that this symptom indicated beginning tabes dorsalis, yet it was a danger signal calling for rest of the brain and cord, with attention to improvement of the general condition

DR O F WADSWORTH reported a case of

DOUBLE OPTIC NEURITIS AND OPHTHALMOPLEGIA FROM LEAD-POISONING, COMPLICATED WITH TYPHOID FEVER

A boy of 9 years of age had suffered from obscure febrile symptoms for several weeks, and movements of the left eye had been observed to be imperfect When first seen by Dr Wadsworth, there was pronounced optic neuritis in both eyes The rest of the fundus normal Vision was much diminished No lateral movements of left eye could be made, and movement downward was impaired The outward movement of right eye was defective The probable diagnosis was tumor in the region of the pons The movements of the eyes became still more impaired and vision sank The boy developed pretty distinct symptoms of typhoid fever The spleen and liver were both enlarged Lead was found in the urine, and the diagnosis of tumor was then abandoned The treatment was with iodide of potassium The general condition gradually improved The neuritis passed into atrophy, leaving too little vision to count fingers The movements of the eyes were completely restored and the lead disappeared from the urine The cause of the lead poisoning was found to be the presence of a piece of lead pipe in the cistern from which the drinking water was obtained

Dr Joseph A Andrews, of New York, read a paper on

OLIVE OIL AS A MENSTRUUM FOR DISSOLVING COCAINE FOR APPLICATION TO THE EYE

In addition to the occasional benefit from the use of oil dropped into the eye in recent abrasions from burns and in other painful affections of the cornea in which atropia is indicated, cocaine may likewise be serviceable The plan of dissolving the cocaine in oil seems to insure a longer contact of the remedy, and a smaller quantity is required to effect anæsthesia, two qualities of especial advantage in operations on the eye

Neither the salt of cocaine nor of atropia is soluble in olive oil, but the alkaloid of both dissolves readily in the menstruum without the addition of an acid, it being only necessary to expose the solution for a few minutes to a gentle heat in a water bath Castor oil is not a desirable menstruum on account of its irritating qualities, and the oleate of cocaine, for the same reason, is still more objectionable as an application to the eye

Dr E Williams read a paper on

QUININE AMAUROSIS

He reported two cases In the first case, a man took about one ounce in the course of four days This produced total blindness and deafness, but in six weeks he could see as well as ever The hearing had never completely returned, although the quinine was taken eight years ago The field of vision was concentrically contracted in both eyes The optic disks were very white, the calibre of the arteries and veins was reduced, and the smaller capillaries could not be seen

The second case was that of a boy of 14 who had received large doses of quinine, the exact amount not being known He was totally blind four days When examined, the sight was much diminished and the atrophy of the optic disks was extreme, and there was great contraction of the field of vision

Dr Lucien Howe described his method of

MEASURING THE AMOUNT OF ANÆSTHESIA FROM COCAINE

The doctor exhibited the drawing of a kymograph which he had used for this purpose The use of the instrument was based on the fact that irritation of a sensory nerve is followed by a rise of blood pressure The instrument is connected with an artery and the conjunctiva is irritated Cocaine may then be applied and the results on the blood pressure compared

Dr Dennet, of New York, exhibited

AN ARRANGEMENT FOR USING STOKES' LENS FOR MEASURING ASTIGMATISM,

and to avoid the inconvenience of constantly removing the frame from the patient's nose The lens was mounted on a stand and could thus be placed in front of the patient

The following were elected

OFFICERS FOR THE ENSUING YEAR

President, Wm F Norris, M D , of Philadelphia
Vice-President, Hasket Derby, M D , of Boston
Secretary and Treasurer, O F Wadsworth, M D , of Boston
Corresponding Secretary, J S Prout, M D , of Brooklyn

The following

NEW MEMBERS

were elected Drs Chas A Oliver, of Philadelphia, Edward Jackson, of Philadelphia, B Alexander Randall, of Philadelphia, D Pope Walker, of New York, Wm O Moore, of New York, Frank G Capron, of Providence, S M Burnett, of Washington, and Wm T Bacon, of Hartford

The next meeting will be held at New London, on the third Wednesday in July, 1886

STATE MEDICAL SOCIETY OF WISCONSIN

Thirty-ninth Annual Session, held in Milwaukee, June 2, 3 and 4, 1885

The President, E W Bartlett, M D , of Milwaukee, in the Chair

Dr Bartlett's

PRESIDENTIAL ADDRESS,

the title of which was "Yours Fraternally," and which was largely concerned with ethical questions, was referred to the Committee on Ethics for consideration As a result of the discussion arising from this address the Committee reported the following resolution, which was unanimously adopted

Resolved, That the State Medical Society of Wisconsin hereby re-affirms its steadfast adherence to the Code of Ethics of the American Medical Association

Dr W Meacher, of Portage, presented two papers, one on the comparative merits of *Syme's and Pirogoff's Methods of Amputating the Foot*, each of which the reader thought had value according as the patient could or could not obtain an artificial foot The second paper was on *Rectal Surgery, with particular reference to the treatment of Fistula and Hæmorrhoids*

Dr S Marks, of Milwaukee, read a paper on

HERNIA, INGUINAL AND FEMORAL,

making a strong plea for the use of narcotics in cases of inguinal hernia when reduction was difficult, and there were no symptoms indicative of immediate danger The experience of the last fifteen or twenty years had greatly changed the speaker's views as to the propriety of early operation in such cases, and whereas formerly, he would have operated promptly on failure of the efforts at taxis, now he would push opiates for twenty-four hours or more, keeping his patient fully under their influence, and using taxis from time to time Of course he would not advise delay where there were fæcal vomiting and other urgent indications of a necessity for operating, neither would he advise waiting in case of femoral hernia after attempts at reduction had failed Under such circumstances he would operate at once, but where danger was not imminent in the inguinal form of the accident he fully believed that he had proved the value of narcotism and delay in many cases

Dr La Count, of Chilton, exhibited a

FEMUR FROM A CASE OF AMPUTATION FOR OSTEO MYELITIS

The bone showed clearly the characteristic effects of the disease and the manner in which adjacent joints became involved

Dr G F Witter, of Grand Rapids, showed a photograph of an

INFANT SUCCESSFULLY OPERATED ON, AT THE AGE OF FOUR WEEKS, FOR HARE-LIP AND CLEFT PALATE

The facial deformity was very marked and there was great difficulty in administering nourishment, hence the necessity for early interference He had never before performed the operation on so young a child, but in view of the degree of success attained in this instance he thought that he should hereafter favor early operation in similar cases

From the Committee on Obstetrics and Gynecology, Drs Armstrong, Davies and Stalker presented papers Dr Armstrong reviewed the progress made during the past decade, especially in *Surgical Gynecology* Dr Davies discussed the *Ignorant Use of Ergot* at the hands of midwives in obstetric cases, citing a case within his own experience in illustration, and Dr Stalker presented an account of a *Case of Arrested Development*, with photographs of the fœtus

From the venerable Dr Harmon Van Dusen, of Mineral Point, who has been for thirty years an active member of the Society and has filled the Presidential chair several times, and who, until prevented very recently by his great age, has never failed to honor the annual meetings by his presence, the Society received as a souvenir the diploma by which, nearly sixty years ago, he obtained entrance into the ranks of the profession The somewhat quaint document, which was issued in 1826 by the Onondaga County Medical Society, of New York, was presented on behalf of Dr Van Dusen by Dr Whiting, of Janesville The Society accepted the gift and voted that it be placed in the rooms of the State Historical Society at Madison for safe keeping, and that the thanks and love of the association be conveyed to Dr Van Dusen

Dr J M Dodson read a paper on the

TREATMENT OF PYREXIA

The writer thought the cold bath frequently repeated the most effectual means of reducing temperature in fevers, and thought that the difficulty in the way of administering it in ordinary household practice might be met by using India-rubber bathtubs The cold pack ranked next in value in his estimation, while cold affusions he thought were of very limited application Of drugs, quinine occupied the first place as an antipyretic, but it must be used in much larger doses than usual in order to obtain its full effect Recent clinical experience had shown that the fear of bad results from large doses of quinine was unfounded to a great extent With kairin, antipyrin, etc, further experience was necessary before their value could be fully determined The use of antipyrin certainly was not wholly free from danger

Drs Buckmaster and Wigginton, of the Committee on Nervous Diseases, presented papers on topics connected with *Insanity*

Dr Wigginton discussed the

RELATIONS OF MEDICAL MEN TO THE INSANE,

which he thought were possessed of a higher degree of importance than was sometimes assigned to them There were some cases of insanity which ought to have the benefit of hospital treatment at the earliest possible time, and there were others for which the hospital was productive of harm rather than good, and the physician should take time and pains to discriminate between these classes

In the debate which followed Dr Wigginton's paper, it was suggested that as the law now stood there was but little opportunity for making the full and exhaustive investigation of each case that the physician deemed advisable, and that the only way of meeting the difficulty was by the establishment of a special hospital to which all cases of alleged insanity should be sent for observation Such a hospital would relieve the physician of much embarrassment, while it would on the other hand be better for the patient and his friends

Dr Buckmaster reported a case of *Mysophobia*, and read a paper entitled

ILLUSTRIOUS INSANE

He pointed out the fact that even in their own day many of the prophets were accounted madmen, and said that were they living to day their recorded proceedings would certify them as candidates for treatment Mahomet, Joan of Arc, Martin Luther, John Bunyan, Swedenborg, the elder Booth, and many others were enumerated in his list

A Special Committee on the

RELATION OF PHYSICIANS TO THE COURTS

was appointed at the meeting of the Society in 1884, Dr F W Epley, of New Richmond, being chairman Dr Epley reported that the Committee had prepared a bill providing for the proper compensation of witnesses called to testify to matters of opinion, and had introduced it into the legislature, but that it had entirely failed to receive favorable consideration, and that there seemed no use whatever in making further efforts in that direction, as the law makers could not be brought to see that there was any difference between scientific opinion and evidence as to matters of fact

After a full discussion of the Committee's report, Dr G H Fox, of Oregon, said that if the Society would back him up he would agree to make

A TEST CASE IN THE COURTS

when next summoned on subpœna as an expert, by refusing to be sworn or to testify unless properly compensated He thought that if the profession generally would pursue this course, it would not take long to bring the courts and the legislature to a sense of the value of their knowledge

Dr McLeod also expressed his willingness to make a test case for the courts and it was resolved that a Committee be appointed with power to levy an assessment on the members of the Society for the purpose of raising a fund to pay the cost of making up a test case for the Supreme Conrt

Dr Gapen said that he had had occasion to look up the matter, and that there was thus far no precedent established and recorded in any court of the United States concerning the right of expert witnesses to compensation, and that the action of the Society in this matter would be of interest to the medical profession of the whole country

Various papers were presented from other Committees, among which were one on *New Remedies*, by Dr Stockman, one on *The Diagnostic Value of Koch's Cholera Bacillus*, by Dr Farnham, which was illustrated by microscopic preparations, one made in Koch's own laboratory, a paper on *Medical Humbugs, Regular and Others*, by Dr Berwig, an account of a case of *Compound Fracture of the Ankle*, by Dr McArthur, and one of a case of *Periostitis*, by Dr G H Fox

Dr G M Steele, of Oshkosh, was elected President for the ensuing year, and Drs S C Johnson, of Hudson, and D C Davies, of Columbus, first and second Vice-Presidents Dr J T Reeve retains the office of Secretary Drs J R Barnett, T P Russell and L G Armstrong were elected to the Committee on Ethics, and Dr N Fenn was reelected Censor for three years

About twenty new members were admitted, four of whom were ladies, this being the first occasion of the admission of female members to this Society

Courtesies were exchanged with the Provincial Medical Society of Ontario, which held its annual session at the same time, and communications were received from the State Societies of New Jersey and Nebraska and from the American Medical Association

The resident physicians of Milwaukee entertained the Society at the Plankinton House on Wednesday evening, June 3, and the Directors of the Sanitarium at Waunatosa invited a visit to that institution, placing a special train at the disposal of the Society

The city of Madison, in which the Society held its first meeting, was selected as the place for the fortieth session, which will commence on the first Tuesday of May, 1886

STATE MEDICINE

SANITARY CONVENTION AT YPSILANTI, MICHIGAN

Great interest was manifested in the Ypsilanti Sanitary Convention, which was held June 30, and July 1, 1885, under the auspices of the Michigan State Board of Health The physicians of Ypsilanti the professors of the State Normal School, and a large number of other prominent citizens of that place were in constant attendance About twenty physicians and health officers from other places were also in attendance

C L Yost, Mayor of the city, opened the convention with a brief address of welcome, in which he said that "In times past we have been honored with the presence of other assemblages for consultation upon religious, political, medical, or other interests, but this is the first time that disinterested philanthropists have come to us to discuss those great practical questions relating to the guardianship of public health" He thought that the adage "An ounce of prevention is worth a pound of cure," was the inspiring motive that brought them together Their city was more than usually blessed with conditions for good health, still they recognized the value of detailed instruction in sanitary subjects Sanitary science is in its infancy, and all attempts to further it and bring intelligent attention to its teachings should be welcomed by thinking men everywhere

Edwin Willets, President of the Michigan State Agricultural College, presided over the convention, and in his address dwelt upon the

VALUE OF HUMAN LIFE CONSIDERED FROM AN ECONOMIC STANDING POINT

as worked out by eminent statisticians A number of people who should produce $3,000 000 when in good health, could produce when not in good health only $2,000,000 Here is a loss of one-third, much of which could be saved by applying the simplest sanitary precautions It is the duty of a community to keep these human earning-machines in good condition of health or earning capacity, even from economical motives A community has the legal right to do this We want pure water and plenty of it, clean streets, cleansed sewers and drains, swamps drained, cesspools filled up, and we should not count the cost on our fingers The crowning labor of our medical science is in the warding off of disease Given by heredity a sound constitution, pure air, pure water, and nutritious food ought to guarantee to every human being, as he puts his foot on this earth, his three score years and ten, with which assurance he might plan the labors of a long life

Rev Dr Woodruff, of Ypsilanti, read a paper on

THE MORAL EFFECT OF SANITATION

He told of the importance the ancient Jewish people gave to sanitation, and in a forcible way pointed out its power in elevating man morally as well as socially and physically He thought the present attention given to sanitary matters is not temporary The reform has come to stay

PROF AUSTIN GEORGE, of the State Normal School, spoke of the

SANITARY NEEDS OF SCHOOL BUILDINGS AND GROUNDS

1 School sites should be on gravelly soil, a natural knoll, admitting thorough drainage 2 Wells should not be nearer than 100 feet to the outhouses 4 Basements should be high, with free circulation of air under ground floors School rooms should contain 250 cubic feet of air space for each child The light should come in over the left shoulder The windows should go to the ceiling, and within three-and one half feet of the floor The blackboard should be on the side of the room opposite the windows, and never have a glossy surface 4 The simplest heating and ventilating apparatus is the hot-air furnace, and for small buildings the jacketed stove The foul air outlets should be ample, and at the floor level With any system, the rooms should be frequently flushed with fresh air through windows and doors The temperature should be kept at 70° Fahr, not by teachers' sensations, but by thermometers 5 Perfect desks and benches are not yet made, they should be adjustable, to suit different sizes, and be constructed with reference to the curves of the body There should be foot-rests which could be raised or lowered until each pupil is made comfortable and able to take a healthful position Many spinal complaints and pulmonary diseases are produced by improper desks 6 Means for drying wet wraps should be provided 7 Precautions against fire should be had, especially in the heating apparatus and the chimney 8 "Inasmuch as the State educates the children, and compels their attendance in public buildings, the State should see that the children are not subjected to any preventable cause of disease"

DR. BION WHELAN, of Hillsdale, Mich, spoke on

SANITATION IN SMALL CITIES

The water supply should be guarded from contamination from cesspools and vaults If we could not have sewers, the most feasible plan for disposing of garbage is to divide the city into districts, and have it removed by licensed scavengers Sanitary science should be taught in schools The women should be taught sanitary needs, as much of sanitary work falls upon them The nature of contagious diseases, and means for their restriction should be known by all

DR J K KELLOGG, of Battle Creek, spoke of the

DISPOSAL OF SLOPS AND GARBAGE,

illustrating by use of the blackboard He pictured in a graphic way the ordinary condition of back-yards, as contrasted with front-yards He prefaced his subject proper with a brief description of bacteria and other low forms of microscopic life, and showed the relation of these to decay, no decay being possible without their intervention He showed the importance and usefulness of certain sorts, the dangerous nature of others He spoke of flies in relation to filth They are a very strong indication of the presence of filth, and consequently of germs, and it is even believed that the germs of certain diseases may be spread by them Whenever a house is full of flies, you may be certain that slops or garbage of some sort has been allowed to accumulate about the premises He stated that the air about cesspools, foul drains, and other filthy places is usually swarming with micro organisms, and he believed that even if such germs were not the direct cause of certain diseases, the continual breathing of such air predisposes thereto All sources of filth should be carefully and speedily removed from the habitation and its vicinity Garbage can be reduced to a minimum by a little attention to domestic economy Much food that becomes garbage through carelessness could be turned to good use if not neglected Even after due care, however, some refuse will remain So far as possible this should be burned That is the best method of disposal Where it is impracticable, a water-tight, covered receptacle can be used for receiving such refuse, which should be removed frequently by a paid scavenger, or otherwise Slops should not be thrown upon the ground, into open drains, or into cesspools in the yard He had known of frequent instances in which wells and cisterns were contaminated from the seepage of foul privies, drains and cesspools If slops must be poured on the ground, set off a portion of the back end of the garden, and distribute the slops on different parts of it on alternate days, giving in this way some opportunity for the soil to oxydize the organic matter Slops containing excreta from contagious diseases should be thoroughly disinfected

DR O W WIGHT, of Detroit, spoke on the

PREVENTION OF COMMUNICABLE DISEASES

He showed clearly the contagious nature of those diseases, the great and unnecessary loss of human life resulting therefrom, and how they were best restricted, citing cases from his own long experience in Milwaukee and in Detroit The main points in outbreak of a contagious disease are

1 On the part of the householder and physician (*a*) Speedy determination of the nature of the disease, (*b*) Prompt notification to Health Officer, (*c*) Cheerful acquiesence in regulations of Health Officer 2 On the part of the health department (*a*) Immediate separation of the sick from the well, as only those who are required to nurse should be allowed in the room, the sick room should be an upper chamber, (*b*) Strict quarantine of the premises, and placarding of premises, if smallpox, all exposed should be vaccinated in both arms, (*c*) Private funeral, (*d*) Thorough disinfection, after death or recovery by chlorine gas or fumes of burning sulphur, of bedding, clothing, premises, etc

Dr Wight thought that diphtheria and scarlet fever were sometimes spread by careless physicians,—criminal carelessness During four years in Detroit he had witnessed a large growth of public sentiment in favor of public health work

DR VICTOR C VAUGHAN, of Ann Arbor, next spoke on

WATER SUPPLY

Sources of water-supply are three: cisterns, surface, and subterranean. Cisterns should always be plastered outside and inside, with an excavation at least two feet larger than the reservoir, so that a brick or stone wall may be built or plastered as above. Cistern water, when boiled and filtered, is the best for use. Dr. Vaughan cited cases in Ann Arbor and Adrian in which drain water percolated into cistern water, causing malignant typhoid fever. In the discussion of surface-water, he said that we had in this country all the conditions for the development and spread of the cholera germ should it once reach our shores. Well-water is a suspicious water, because of the ease with which contamination can be carried down through the sand and gravel into the well. Subterranean water is not necessarily pure. By carefully selected illustrations he showed that contamination may be carried through the soil a very great distance by the percolation of water, the water acting as the carrying agent.

Dr. Ruth A. French, of Ypsilanti, read a paper on

MANAGEMENT OF EARTH-CLOSETS

It is a practical way out of the privy nuisance for towns too small to have sewers and a general water-supply. Earth-closets deodorize the secreta, destroy germs of contagious disease, and are necessary to invalids.

Erwin F. Smith, Esq., of Lansing, spoke on the

RELATIONS OF SEWERAGE AND WATER SUPPLY TO THE DEATH RATE IN CITIES

His general propositions were: 1. Some method of sewage disposal is a necessity of civilized life, 2. Dry earth closets, *properly cared for*, will answer for isolated dwellings and small villages, but water carriage is the only system adapted to large towns and cities, 3. The presence of typhoid and cholera is in an inverse ratio to the sewerage of a city, 4. The modern increase of diphtheria cannot be attributed to sewers, 5. The death rate from all causes falls whenever a city is thoroughly sewered, and never attains its *ante sewered* maximum, 6. Judged solely from the standpoint of pecuniary economy, the lowest of all standards, sewerage and water supply can be successfully defended against all opposition.

The statistics used in this paper are drawn from the highest authorities, American and foreign, are brought down to the close of the year 1884, and in many cases cover long periods, 10 to 40 years. They show that typhoid fever has fallen off from one-half to nine-tenths in sewered cities since they adopted sewerage, and that such cities are practically secure from the ravages of cholera. *Per contra*, in non-sewered cities the typhoid fever and the cholera mortality is as great to day as it was thirty years ago.

At the close of the convention arrangements were made for the organization of a Local Sanitary Association, the local committee of the Convention being a committee to complete this organization.

FOREIGN CORRESPONDENCE

LETTER FROM LONDON

(FROM OUR OWN CORRESPONDENT.)

Deaths from Starvation and Privation—The London School of Medicine for Women—Shortening the Round Ligaments for Uterine Displacements—The Better Feeding of the People.

The usual annual return of deaths in the Metropolitan district upon which coroner's juries have returned a verdict of death from starvation or accelerated by privation shows that the number of these deaths in the year 1884, was thirty-seven, of these, eight occured in the central division of Middlesex, twenty-six in the eastern division, two in the western and one in the Greenwich division.

In the absence of Mrs. Garrett-Anderson, the Dean of the London School of Medicine for Women, Mr. A. T. Norton read the report for the past year, at the late distribution of prizes and certificates won by the pupils. This stated that the year had been one of great progress, and there had been a larger entry of pupils than in any previous year. Fifteen pupils had joined last October, and two more in the summer. Five had passed the final professional examination of the King and Queen's College of Physicians, Ireland, and four the final examination. Two had passed the M. B. examination of the University of London, and seven students who had taken their diplomas have been studying in the large hospitals in Vienna. Referring to the success of past students, the report stated that Miss Julia Cook had been appointed medical officer to the Sunnyfield Convalescent Home, and Miss Tomlinson as medical officer to the Camden Schools. The experiment that had been tried of providing female medical officers for the female clerks in government offices had worked well in Liverpool, London and Manchester. After the distribution of the prizes Professor Gladstone congratulated the school on the progress it was making year by year. It was not the time now to discuss the question whether women should or should not be allowed to become properly qualified medical officers. That battle had already been won. Addressing the students directly, he said there could not be a higher and nobler life than the one they had chosen, and their power for good amongst the families they would be brought into contact with would be inestimable. He believed a great and successful future was before that institution. Mrs. Westlake moved a vote of thanks to Professor Gladstone, which was seconded by Professor Harvey, of Calcutta, who spoke of the immense good already done and to be done by woman doctors in India.

At the last meeting of the British Gynæcological Society a most instructive and interesting paper was read by Dr. Alexander, of Liverpool, on the "Operation of Correcting some Uterine Displacements by Shortening the Round Ligaments." Dr. Alexander pointed out that the operation had been performed in most of the large continental cities, and invariably with more uniform success than generally befell any new operation. He never found any difficulty in finding and drawing out the ligaments. He made an incision upwards and outwards from the pubic spine, in the direction of the inguinal canal, for one and a half to two or three inches, according to the fatness of the subject. A considerable thickness of subcutaneous fat was then met with which must be cut through by subsequent incisions, until the pearly, glistening tendon of the external oblique muscle was reached. Midway through the fatty tissue an aponeurosis sometimes appears, so firm and smooth that it might cause the operator to think he was deep enough, but he would find no ligaments at this spot. The first stage of the operation consisted simply in cutting down upon the tendon of the external oblique muscle, until it appeared clean and shining at the bottom of the wound. The external ring was then found. The finger passed to the bottom of the wound detected the spine and the ring outside. Having isolated the external wound, and tied any little muscles, the next step was to find the end of the ligament. By everting all the structures upwards, the round ligament could be seen, generally at the lowest part, and with the white easily distinguished genital branch of the genito-crural nerve along its anterior surface and close to it. The ligament at this stage was more or less rounded in shape. It was an easily recognized flesh colored structure. When the ligament was identified, the small nerve on its surface was to be cut through without dividing any of the ligament. Then gentle traction was to be made, either by the fingers or by broad blunt-pointed forceps. Bands, holding it to neighboring structures, were cut through with scissors. As soon as it began to peel out, it was left and the opposite side begun.

The final stage of the operation consisted in placing the uterus in position by the sound, and pulling out the ligaments until they were felt to control that position. A curved threaded needle, with fine catgut, was used to stitch each ligament to both pillars of the ring, and the external abdominal ring was closed without strangulating the ligament as it lay between it. The ends of the ligaments were now cut off, and the remainder stitched into the wound by means of the sutures that close the incision. A fine drainage-tube was inserted, and the wound washed out with carbolic or other lotion before these sutures were tied. The after-treatment consisted in rest. The tubes should be removed on the second day, when the wounds were dressed. As to the dangers of the operation, the mortality was stated to be nil. Three deaths had occurred but they were due to preventable causes. The real question at issue was whether the operation fulfilled the intentions of the operator, viz.: corrected certain uterine displacements and thereby relieved the discomfort of the patient; this, of course, must depend on whether or not the symptoms were due to the displacement. To secure success the operation must be properly performed, and the after-treatment must be rational, so that no strain might be placed on the ligaments until sound union had taken place.

The first of a series of receptions to promote the movement for the better feeding of the people, was held recently at the Parke's Museum of Hygiene. It was explained to the visitors that wheat-meal bread (instead of white) oat-meal, barley, lentils, haricot beans, etc., with the addition of fresh fruit and vegetables should, for the sake of both economy and health, be much more largely used than at present.

G. O. M.

DOMESTIC CORRESPONDENCE.

QUADRUPLE PREGNANCY.

Dear Sir:—At 6 A.M., July 3d, I was called to see Mrs. D. R. Barnett. I found her greatly enlarged, with extreme œdema of the feet and legs. Labor had commenced four hours previously. Pains were frequent and regular, the os dilatable and a vertex presenting; the waters had not passed. After rupturing the sac labor progressed more rapidly, and about 8 o'clock a female child was born. The pains continuing, I examined again, and discovered a breech presenting, also in an unbroken sac. Shortly after rupturing this a male babe was delivered. Much to my surprise the pains continued, and after caring for the second child I examined again, and found another vertex engaged and also in its own sac. This I could not rupture in the usual manner with my finger, but had to use a pair of blunt scissors. In fifteen or twenty minutes a second female babe was safely delivered. I thought that surely this was enough, but the pains continued constant and strong. Thinking it must be the placenta, I cared for the third babe before examining. When I was ready I discovered a second breech presentation, this also in its own sac. This sac I had to rupture with the scissors on account of the toughness of the membrane. In about twenty minutes the second male or fourth child was delivered, but apparently dead and bloodless. However, after working over it for about ten minutes, respiration and circulation were well established. I delivered the placenta in fifteen or twenty minutes after the birth of the last child; it was in one piece and very large, though the union of four placentæ could be distinctly seen, with their four cords attached. The babes weighed, in the afternoon of the same day, 21½ pounds in all. The girls 5¼ pounds each, the boys 5½ pounds each. The mother and children are all well and progressing finely at the present writing; the babes being nursed on the mixed plan.

The parents are Scotch, having come to this country three years ago. They had five children previous to the late addition; all are very healthy and came single. The lady is 35 or 36 years of age, medium size, and has been robust.

Yours truly,
M. ARTHUR, M. D.

Waverly, Dakota, July 19, 1885.

RENAL CALCULI.

Dear Sir:—In the issue of the JOURNAL of June 27th there is reported a case of "Renal Calculi," which caused inflammation of the kidney, inv the neighboring structure and leading to a

WATER SUPPLY

Sources of water supply are three cisterns, surface, and subterranean Cisterns should always be plastered outside and inside, with an excavation at least two feet larger than the reservoir, so that a brick or stone wall may be built or plastered as above Cistern water, when boiled and filtered, is the best for use Dr Vaughan cited cases in Ann Arbor and Adrian in which drain water percolated into cistern water, causing malignant typhoid fever In the discussion of surface-water, he said that we had in this country all the conditions for the development and spread of the cholera germ should it once reach our shores Well water is a suspicious water, because of the ease with which contamination can be carried down through the sand and gravel into the well Subterranean water is not necessarily pure By carefully selected illustrations he showed that contamination may be carried through the soil a very great distance by the percolation of water, the water acting as the carrying agent

Dr Ruth A French, of Ypsilanti, read a paper on

MANAGEMENT OF EARTH-CLOSETS

It is a practical way out of the privy nuisance for towns too small to have sewers and a general water-supply Earth closets deodorize the secreta, destroy germs of contagious disease, and are necessary to invalids

Erwin F Smith, Esq, of Lansing, spoke on the

RELATIONS OF SEWERAGE AND WATER SUPPLY TO THE DEATH-RATE IN CITIES

His general propositions were 1 Some method of sewage disposal is a necessity of civilized life, 2 Dry earth closets, *properly cared for*, will answer for isolated dwellings and small villages, but water carriage is the only system adapted to large towns and cities, 3 The presence of typhoid and cholera is in an inverse ratio to the sewerage of a city, 4 The modern increase of diphtheria cannot be attributed to sewers, 5 The death rate from all causes falls whenever a city is thoroughly sewered, and never attains its *ante sewered* maximum, 6 Judged solely from the standpoint of pecuniary economy, the lowest of all standards, sewerage and water supply can be successfully defended against all opposition

The statistics used in this paper are drawn from the highest authorities, American and foreign, are brought down to the close of the year 1884, and in many cases cover long periods, 10 to 40 years They show that typhoid fever has fallen off from one-half to nine tenths in sewered cities since they adopted sewerage, and that such cities are practically secure from the ravages of cholera *Per contra*, in non-sewered cities the typhoid fever and the cholera mortality is as great to day as it was thirty years ago

At the close of the convention arrangements were made for the organization of a Local Sanitary Association, the local committee of the Convention being a committee to complete this organization

FOREIGN CORRESPONDENCE

LETTER FROM LONDON

(FROM OUR OWN CORRESPONDENT)

Deaths from Starvation and Privation—The London School of Medicine for Women—Shortening the Round Ligaments for Uterine Displacements—The Better Feeding of the People

The usual annual return of deaths in the Metropolitan district upon which coroner's juries have returned a verdict of death from starvation or accelerated by privation shows that the number of these deaths in the year 1884, was thirty-seven, of these, eight occured in the central division of Middlesex, twenty-six in the eastern division, two in the western and one in the Greenwich division

In the absence of Mrs Garrett-Anderson, the Dean of the London School of Medicine for Women, Mr A T Norton read the report for the past year, at the late distribution of prizes and certificates won by the pupils This stated that the year had been one of great progress, and there had been a larger entry of pupils than in any previous year Fifteen pupils had joined last October, and two more in the summer Five had passed the final professional examination of the King and Queen's College of Physicians, Ireland, and four the final examination Two had passed the M B examination of the University of London, and seven students who had taken their diplomas have been studying in the large hospitals in Vienna Referring to the success of past students, the report stated that Miss Julia Cook had been appointed medical officer to the Sunnyfield Convalescent Home, and Miss Tomlinson as medical officer to the Camden Schools The experiment that had been tried of providing female medical officers for the female clerks in government offices had worked well in Liverpool, London and Manchester After the distribution of the prizes Professor Gladstone congratulated the school on the progress it was making year by year It was not the time now to discuss the question whether women should or should not be allowed to become properly qualified medical officers That battle had already been won Addressing the students directly, he said there could not be a higher and nobler life than the one they had chosen, and their power for good amongst the families they would be brought into contact with would be inestimable He believed a great and successful future was before that institution Mrs Westlake moved a vote of thanks to Professor Gladstone, which was seconded by Professor Harvey, of Calcutta, who spoke of the immense good already done and to be done by woman doctors in India

At the last meeting of the British Gynæcological Society a most instructive and interesting paper was read by Dr Alexander, of Liverpool, on the "Operation of Correcting some Uterine Displacements by Shortening the Round Ligaments" Dr Alexander pointed out that the operation had been performed in most of the large continental cities, and invariably with more uniform success than generally befell any new operation He never found any difficulty in finding and drawing out the ligaments He made an incision upwards and outwards from the pubic spine, in the direction of the inguinal canal, for one and a half to two or three inches, according to the fatness of the subject A considerable thickness of subcutaneous fat was then met with which must be cut through by subsequent incisions, until the pearly, glistening tendon of the external oblique muscle was reached Midway through the fatty tissue an aponeurosis sometimes appears, so firm and smooth that it might cause the operator to think he was deep enough, but he would find no ligaments at this spot The first stage of the operation consisted simply in cutting down upon the tendon of the external oblique muscle, until it appeared clean and shining at the bottom of the wound The external ring was then found The finger passed to the bottom of the wound detected the spine and the ring outside Having isolated the external wound, and tied any little muscles, the next step was to find the end of the ligament By everting all the structures upwards, the round ligament could be seen, generally at the lowest part, and with the white easily distinguished genital branch of the genito crural nerve along its anterior surface and close to it The ligament at this stage was more or less rounded in shape It was an easily recognized flesh colored structure When the ligament was identified, the small nerve on its surface was to be cut through without dividing any of the ligament Then gentle traction was to be made, either by the fingers or by broad blunt-pointed forceps Bands, holding it to neighboring structures, were cut through with scissors As soon as it began to peel out, it was left and the opposite side begun

The final stage of the operation consisted in placing the uterus in position by the sound, and pulling out the ligaments until they were felt to control that position A curved threaded needle, with fine catgut, was used to stitch each ligament to both pillars of the ring, and the external abdominal ring was closed without strangulating the ligament as it lay between it The ends of the ligaments were now cut off, and the remainder stitched into the wound by means of the sutures that close the incision A fine drainage tube was inserted, and the wound washed out with carbolic or other lotion before these sutures were tied The after-treatment consisted in rest The tubes should be removed on the second day, when the wounds were dressed As to the dangers of the operation, the mortality was stated to be nil Three deaths had occurred but they were due to preventable causes The real question at issue was whether the operation fulfilled the intentions of the operator, viz corrected certain uterine displacements and thereby relieved the discomfort of the patient, this, of course, must depend on whether or not the symptoms were due to the displacement To secure success the operation must be properly performed, and the after-treatment must be rational, so that no strain might be placed on the ligaments until sound union had taken place

The first of a series of receptions to promote the movement for the better feeding of the people, was held recently at the Parke's Museum of Hygiene It was explained to the visitors that wheat-meal bread (instead of white) oat meal, barley, lentils, haricot beans, etc , with the addition of fresh fruit and vegetables should, for the sake of both economy and health, be much more largely used than at present

G O M

DOMESTIC CORRESPONDENCE

QUADRUPLE PREGNANCY

Dear Sir —At 6 A M , July 3d, I was called to see Mrs D R Barnett I found her greatly enlarged, with extreme œdema of the feet and legs Labor had commenced four hours previously Pains were frequent and regular, the os dilatable and a vertex presenting, the waters had not passed After rupturing the sac labor progressed more rapidly, and about 8 o'clock a female child was born The pains continuing, I examined again, and discovered a breech presenting, also in an unbroken sac Shortly after rupturing this a male babe was delivered Much to my surprise the pains continued, and after caring for the second child I examined again, and found another vertex engaged and also in its own sac This I could not rupture in the usual manner with my finger, but had to use a pair of blunt scissors In fifteen or twenty minutes a second female babe was safely delivered I thought that surely this was enough, but the pains continued constant and strong Thinking it must be the placenta, I cared for the third babe before examining When I was ready I discovered a second breech presentation, this also in its own sac This sac I had to rupture with the scissors on account of the toughness of the membrane In about twenty minutes the second male or fourth child was delivered, but apparently dead and bloodless However, after working over it for about ten minutes, respiration and circulation were well established I delivered the placenta in fifteen or twenty minutes after the birth of the last child, it was in one piece and very large, though the union of four placentæ could be distinctly seen, with their four cords attached The babes weighed, in the afternoon of the same day, 21½ pounds in all The girls 5¼ pounds each, the boys 5½ pounds each The mother and children are all well and progressing finely at the present writing, the babes being nursed on the mixed plan

The parents are Scotch, having come to this country three years ago They had five children previous to the late addition, all are very healthy and came single The lady is 35 or 36 years of age, medium size, and has been robust

Yours truly,

M Arthur, M D

Waverly, Dakota, July 19, 1885

RENAL CALCULI

Dear Sir —In the issue of the Journal of June 27th there is reported a case of "Renal Calculi," which caused inflammation of the kidney, involving the neighboring structure and leading to a fatal termination This case, though somewhat unique, resembles in some respects a case that occurred some time since in my practice

At the autopsy of the body of Mr S the left kidney was contracted and completely disorganized, being merely a sac containing a large irregular calculus with débris The weight of the calculus was about 200 grains The right kidney was contracted and granular The capsule of the left kidney had ruptured on the anterior aspect, where there were several cysts There was no disease of the liver, gall-bladder, heart, nor other organs The body of the patient was well nourished and contained a great amount of fat The cause of death was severe shock

When I was called at 1 P M, June 27, 1883, the patient, though suffering great pain, was in a collapsed condition Under the influence of a gr ¼ of sulphate of morphia, administered hypodermically, the patient soon became easy and fell asleep The pulse improved and warmth to the hands and feet soon returned, but as the morphia wore off towards morning, the patient again became collapsed, though not so severely as at first Hypodermic injections of whiskey and enemata of beef tea and strong coffee were administered, but the patient only partially rallied and sank again and died at 4 P M, on the 29th

The patient had been for years troubled with rheumatoid disease, the hands, feet and knees being often greatly swollen The frequent attacks of pain were always very severe, and could only be relieved by subcutaneous injections of morphia Although seen by many eminent physicians, the diagnosis was uncertain Gall stones as the cause of these attacks had been more than once suggested, but none could ever be found in the fæces He was often affected with jaundice No renal calculi at any time were found in the urine The pain was more frequently complained of as being located in the centre of the abdomen and about the region of the pylorus and to the left of the umbilicus The calculus was composed of oxalate and phosphate of lime, similar to those referred to above The length of the painful attacks was often different, sometimes lasting only a few days and at other times for weeks, and then the patient would rally and resume his official duties as constable and collector Careful and repeated examination of the urine gave only negative results The patient for several years had been under my care The autopsy was conducted by Dr A F Holt, one of the State Medical Examiners

Very respectfully,

AUGUSTUS P CLARKE, M D

Cambridge, Mass, July 8, 1885

A LOST INSTRUMENT

Dear Sir —I forwarded a sample instrument and description of same, a "new combined trocar and aspirating needle," to the Chairman of the Section on Surgery for presentation at the meeting held at New Orleans, 1885 The instrument was presented (the Chairman informs me), but never returned to him I trust that you will publish this card, so that the individual in whose possession the instrument now is, may know where it of right belongs I trust the present possessor will forward the instrument to me so that I may use the same as a sample by which the manufacturer may produce another, if they will oblige me this much I promise them a return of the instrument, which I had constructed at an expense of about eight dollars

H LANDIS GETZ, M D

Marshalltown, Iowa

ASSOCIATION ITEMS

MEMBERSHIP BY APPLICATION

At the meeting of the American Medical Association held at Washington, in May, 1884, an amendment to Regulation II was adopted, which provides that membership in the Association shall be obtainable by any member of a State or County Medical Society recognized by the Association, upon application endorsed by the President and Secretary of said Society, and shall be retained so long as he shall remain in good standing in his local Society, and shall pay his annual dues to the Association Hitherto attendance as a delegate at an annual meeting has been necessary in order to obtain such membership

Application for membership, accompanied with FIVE DOLLARS, for annual dues, and the Certificate of Membership in the local Society, should be sent directly to the undersigned, on receipt of which the weekly JOURNAL OF THE ASSOCIATION will be forwarded for one year

RICHARD J DUNGLISON, M D, *Treasurer*

Lock Box 1274, Philadelphia, Pa

MISCELLANEOUS

NOMENCLATURE OF DISEASES —The new edition of the "Nomenclature of Diseases" has been recently issued and distributed to the profession in Great Britain

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY, FROM JULY 25 1885 TO JULY 31 1885

Major Jos H Bill, Surgeon U S A, died at Yonkers, N Y, July 21, 1885

Lieutenant Colonel Charles McDougall, U S A (retired) died at Fairfield, Va, July 25, 1885

Captain Calvin DeWitt, Assistant Surgeon, promoted to Major and Surgeon, vice Bill, deceased, to take effect July 21, 1885

Francis J Ives, appointed Assistant Surgeon with rank of First Lieutenant, to rank as such from July 25, 1885

Captain A C Girard, Assistant Surgeon, from Dept East to Dept Columbia

Captain R G Ebert, Assistant Surgeon, from Dept Columbia to Dept East (S O 170, A G O, July 27, 1885)

Captain A H Appel, Assistant Surgeon, ordered for duty with U S troops forming portion of guard of honor over remains of ex President, General Grant, at Mt McGregor, N Y (S O 36 Div Atlantic, July 29, 1885)

Captain Wm C Gorgas, Assistant Surgeon, granted leave of absence for two months to take effect about August 10, 1885 (S O 169, A G O, July 25, 1885)

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol V | CHICAGO, AUGUST 15, 1885 | No 7

ORIGINAL ARTICLES

VAGINAL HYSTERECTOMY FOR CANCER[1]

BY A REEVES JACKSON, M D,
OF CHICAGO ILL

The only fair method of judging the value of any surgical procedure is to consider its results If these be such as to lessen suffering and prolong life it is useful, and hence proper If, on the contrary, it fail to effect either of these ends, it is useless If, further, it be found after sufficient trial to be destructive of life, it is worse than useless—it is injurious, and ought to be abandoned Judgment should not be rendered prematurely, nor upon insufficient data Neither should it be based upon theoretical grounds, facts only can be the foundation of an honest opinion

My purpose in this paper is to apply these principles to the extirpation of the cancerous uterus, with the view of determining what our attitude ought to be in reference to this operation The abdominal, or Freund's method having, on account of its frightful mortality, been abandoned, or used only in exceptional cases in which removal through the vagina is impracticable, my remarks will have reference wholly to the vaginal operation

What, then, has vaginal hysterectomy done to deserve our favorable consideration? About three and a half years ago, Hegar and Kaltenbach published a table showing the results of the operation from the date of its revival by Hennig, in 1876, down to the time of the report It comprised 29 cases, with a mortality of 27 6 per cent In 1883, Sanger compiled a table which included 133 cases, of which 38, or 28 6 per cent died At the annual meeting of the American Gynecological Society, held in Chicago, September, 1884, Dr Paul F Munde stated that he had collected 256 cases, with a mortality of only 24 6 per cent

Everybody knows that all tables of this character are imperfect, because incomplete They include only the cases which have been published, or which may possibly have come to the personal knowledge of the compiler It is equally well understood that the successful cases are far more likely to be published than the others For example, in my own city (Chicago) the uterus has been removed by the vaginal method four times One of the patients recovered, and three died The first was published, the others were not The single successful case goes into the record showing a recovery rate of 100 per cent, if its three companions were also considered, the rate would be 25 per cent Facts of this kind serve to explain a remarkable discrepancy which is apparent when the results of operation as shown by tables of cases gathered from miscellaneous sources, and assumed to be correct, are compared with those of individual operators whose cases are all given to the world To illustrate Dr Engelmann, of St Louis, in a letter published in the *Weekly Medical Review*, September 1, 1883, stated that down to August 5, Martin had operated by the vagina 50 times, losing one half At the meeting of the British Medical Association, in 1883, Prof Schroder, of Berlin, who had operated in 23 cases, admitted that his mortality was 34 per cent Ohlshausen, also, in a letter which was read on the same occasion by Sir Spencer Wells, stated that he had operated, or attempted to operate in 28 cases, and his results were equally bad with those of Schroder The combined number of operations performed by these three men alone was 101—that is, two fifths of the entire number comprised in Dr Mundé's table. The mortality in these 101 cases was 38 6 per cent. If Dr Munde's data be correct, the operators in the remaining 155 cases were fortunate in having a rate of mortality so preposterously low as to excite wonder Thus, if the mortality in 256 cases was 24 6 (Mundé), the number of fatal cases was 63 Of these, as we have seen, 39 were included in the 101 cases of Martin, Schroder and Ohlshausen This leaves 24 other fatal cases to be furnished by the remaining 155, and shows a mortality of 15 4 per cent !

It seems only just to the gentlemen I have named, to suppose that if all the cases operated upon were published their results would not appear so relatively bad Indeed, from their well-known skill and experience in pelvic and abdominal surgery we should expect from their work the very best possible success, as would doubtless appear if a good deal of the truth in relation to the subject were not suppressed. Figures will not lie if they have a fair chance

In view of the tendency to publish successful cases, and the aversion and frequent failure to publish those which are unsuccessful, the conviction is forced upon me that the mortality of vaginal uterine extirpation is not very greatly less than the published mortality of Freund's method, which, in the same manner, was made to appear less than it really was

---

[1] Read in the Section on Obstetrics and Gynecology at the Thirty Sixth Annual Meeting of the American Medical Association

But, accepting only the published cases, and basing a calculation upon this latest table[1] of 256 cases, with 63 deaths, what is its significance as regards the saving or destruction of life?

While it is impossible to know exactly how many years these 63 women who died would in the aggregate have lived, if permitted, it has been estimated that cancer of the cervix, if left to itself, kills in about seventeen months from the time of the appearance of the distinctive symptoms, and that of the corpus in two and a half years. If we grant that in all these cases the disease affected the cervix, and that the average length of life would be only seventeen months, then the years of life sacrificed would be nearly one hundred. If, in some of them, the disease affected the body of the uterus, as it doubtless did, the aggregate amount of life destroyed would be still greater. And if the unreported fatal cases were added, it would be much greater still.

What is there to offset this? Has a single patient been radically cured, and a life otherwise doomed saved by the operation? There may have been, but I do not know that such a claim has yet been made. Schroder[2] has said, "If only one out of twenty be radically cured, this ought to be considered a good result, and as a consolation for many cases treated unsuccessfully." Most surgeons, I fancy, would feel very inadequately consoled by saving one patient and losing nineteen. But here even the one seems lacking. It has been urged that the prognosis of the operation will probably be better when its technical details become more perfect. Unquestionably, it is reasonable to hope that such may be the case, and certainly it is greatly to be desired. But, so far, the history of the operation in this respect is not encouraging. In 1881 Schroder issued a report of eight operations performed by him, with seven recoveries and only one death. After two years' further experience and fifteen additional cases, his percentage of mortality was nearly three times greater.

But, admitting that the operation may by-and-by become less dangerous, what then? Its dangerous character is by no means the gravest charge against it. Indeed, taken alone, it would hardly be a valid one. A far more serious objection to it is that it is not beneficial when it fails to kill. What does it for those who survive? What do they gain? Are they spared the manifold suffering incident to the disease? Are their lives prolonged? Many patients pass from observation after their recovery, and nothing is known of their subsequent history. Probably, however, this does not differ from that of those who continue under notice, and in these recurrence takes place in all, sooner or later. So absolutely is this true that, in any case offering an apparent exception to the statement, the accuracy of the diagnosis may fairly be doubted. Dr Linkenfeldt, assistant at the clinic at Strasbourg, says that in all cases of total removal of the uterus for cancer performed by Freund relapse followed quickly. In a single instance it happened after two and a-half years. In seven cases given by Sanger the average time of recurrence was 4.2 months. Schroder says: "As to the success obtained by vaginal extirpation, I must admit that it is not yet to be called satisfactory, especially as far as the question of recurrence is concerned." And again, "In a great number of my patients I have seen recurrence, in some cases after two or three years. Other cases have withdrawn from my observation, and only very few have remained until to-day quite without recurrence." All candid testimony corroborates this of Schroder.

And now I ask: When recurring symptoms manifest themselves after the temporary diminution or cessation procured by operation, are they in any manner or degree beneficially modified? Are the hæmorrhages less profuse or less exhausting? Is the leucorrhœa less offensive or less irritating? Is the pain less poignant? Does the cachexia kill less certainly? To all of which the answer must come, assuredly not.

Are lives prolonged by the operation? Observations embracing the complete history of those who have recovered from the operation show that they die, on an average, in a shorter time than if let alone.[1] And this is what we might reasonably expect, since so severe an operation is likely to exert a depressing influence upon a person already laboring under an exhausting and deadly disease. Then, if the operation sacrifices many lives and does not save any, *if it only postpones or interrupts suffering and does not avert or lessen it*, what can be said in its favor? Only this beggarly plea can be urged: that it may in the future not destroy so many, and may possibly even save a life. But should this great and certain evil continue on the mere possibility—the almost baseless hope—that a trifle of good *may* follow? Is this a fair administration of the trust put in us by those who impliedly rely upon our honesty as well as upon our skill?

But, it may be asked, shall no effort be made to save the unfortunate subjects of this dread disease? Unquestionably, it is not only proper, but obligatory upon us to make any and every legitimate endeavor to stay its progress, to mitigate its evils, to avert the threatened death. Such attempts have been made, and are constantly making. But of all the methods employed for these purposes the one which has furnished the worst results, and which has the most utterly failed, is the extirpation of the uterus. Not only is this true of the operation when it is compared with other methods of treatment, but, as already shown, it kills more rapidly than does the disease when allowed to pursue its natural course.

Advocates of the operation are already beginning to place limitations—in theory, at least—upon its employment. Schroder thinks total extirpation ought to be restricted to two classes of cases, namely: 1. Those in which the cancer affects only the body of the uterus, and, 2. Those in which it is limited to the cervical mucous membrane. Dr

---

[1] A more recent table was compiled by Dr. W. A. Duncan for the Obstetrical Society of London, and published in the Lancet for January 31, 1885. It included 276 cases, with 197 recoveries and 79 deaths—mortality 28.6.

[2] British Medical Journal, September 15, 1883.

[1] Sänger (Archiv f. Gynäk., xxxi, 1) states that in six cases observed by him the average time which elapsed between the operation and death was 14.1 months.

Munde, in the paper to which I have referred, agrees with this, but further states that there should be a sufficiently capacious vagina to permit the ready exposure of the cervix and vaginal vault, and also that the condition of the general system should be sufficiently vigorous to permit the patient to endure the shock of the operation.

These restrictions are eminently proper, so far as they go. They are based upon the fact, admitted by all, that if the disease has at all involved the peri uterine structures it cannot be wholly removed, and recurrence is certain. The precept is admirable, but the practice does not and cannot correspond with it. The determination of the essential question involved is attended with insuperable difficulty. In the present state of our art there is no method by which the extent of cancerous involvement in a given case can possibly be known. The microscope may sometimes, perhaps generally, tell us of the existence of the disease, but, during life, at least, is certainly incapable of defining its limits. Isolated cancer cells, conveyed by lymphatics and other avenues, are frequently found scattered through the connective and glandular tissues at a considerable distance from the original growth. These outlying areas of affected structure cannot be submitted to microscopical examination prior to operation, the only time when the knowledge obtainable by it could be available for the purpose of deciding the propriety or possibility of radical removal.

Schroder[1] has stated his belief in the feasibility of distinguishing by the touch with perfect certainty very small infiltrations such as occur principally along the lymphatic vessels. I greatly doubt the possibility of making an accurate diagnosis by this means, and the unreliability of the information furnished by it is clearly shown in the rapid and numerous recurrences of the disease after the distinguished gentleman's own operations. When cancer is limited to the cervical mucous lining it is rarely detected, perhaps never. And if it be so limited, the removal of the entire organ is surely not indicated. The excision of a conical portion, including the external os uteri, and extending beyond the internal os, should be sufficient to remove all the diseased tissue. But I repeat, the disease is not discovered here. At least 90 per cent of the uterine extirpations have been done for cancer of the cervix, and from the greater frequency, and more easy recognition of the disease in this locality, such will doubtless continue to be the ratio. And here, even the men whose opinions I have cited, and who can hardly be called conservative, regard total extirpation as improper. And for very good reason. When cancer affects the cervix uteri its extension is not upward, towards the body, but circumferential, and supra-vaginal amputation, with a mortality about one fourth that of total removal, does all that the latter can do.

This, then, practically reduces the field of the operation to cancer of the uterine body. We know less of the disease in this locality than in that of the cervix. As compared with cervical cancer it is much rarer, although of greater frequency than was formerly supposed. Likewise, it is of much longer duration than cervical cancer, and, while confined to the uterine tissues, it is attended by comparatively slight pain. The progress of the disease is by way of the Fallopian tubes and the network of lymphatics which surround the organ on all sides. The difficulties of diagnosis are great, and not likely to be settled until too late to operate. After pain has become a prominent symptom the surrounding tissues are probably involved, and any operation which does not include the tubes and broad ligaments would be incomplete.

Why should a highly dangerous method be chosen in dealing with uterine cancer when others less perilous and equally efficient can be employed? The various operations by the curette, scissors, caustics, cautery, etc., as employed by Sims, Wells, Byrne, Barnes, Van de Warker, Baker, and others, have given results, both immediate and remote, far superior to those of extirpation. In the *Lancet*, for Aug. 2, 1884, there was published an abstract of a valuable report by Pawlik, of 136 cases of cancer of the cervix treated by the galvanic cautery in the first gynecological clinic at Vienna, the observations extending back to 1861. Of the entire number nine died shortly after operation—a mortality of only 6.6 per cent. Not only in regard to the death-rate, but in every other particular the results were incomparably better than those following the erroneously styled radical method. Indeed, all the minor operative measures to which I have referred, and which are commonly called "palliative," appear to be more radical as regards permanency of cure than total extirpation, and, since their mortality is only about one-fifth of the latter, they should for every proper reason be preferred.

I beg to offer the following conclusions:

1. Any operation for cancer which does not completely remove the disease will be followed by recurrence.

2. During life, the diagnosis of the extent of cancerous disease originating in any part of the uterus, is at present impossible; hence, no operative procedure can afford a guarantee of complete removal.

3. In view of this necessary doubt, no operation is justifiable which greatly endangers life, provided other and safer methods of treatment are available.

4. Vaginal hysterectomy has sacrificed the lives of more than one third of those who have been subjected to it—the mortality of the operation when done by those of greatest skill and experience being over 36 per cent.

5. Other methods of treatment, attended by not more than one sixth to one fourth the mortality of vaginal extirpation, are equally as efficient in ameliorating the symptoms and retarding the progress of the disease; and they have been followed by as good or better ultimate results. Hence, they should be preferred.

6. Vaginal hysterectomy does not avert or lessen suffering; it destroys, and does not save, life. It is, therefore, not a useful but an injurious operation, and being such, it is unjustifiable, and ought to be abandoned.

---

[1] Loc. cit.

DO WE FIND FROM MICRO-ORGANISMS IN ENCLOSED CAVITIES A HITHERTO UNSUSPECTED DANGER TO SURGICAL LESIONS?[1]

BY HENRY O MARCY, M D,
OF BOSTON MASS

This brief communication is suggestive, and must take the form of a query, since the observations are too limited to allow conclusions except in possibility The following clinical histories are at least interesting and instructive

Case 1 —In the summer of 1883, Mrs L , aged about 30, consulted me for pain in one limb which had given trouble since the birth of her only child, 18 months before, Her general health was excellent Only a few days after visit, I was informed of her sudden death She stepped heavily from a horse-car and felt something, as she expressed it, "give away" in her abdomen Death followed in forty hours

The autopsy showed a general peritonitis with an effusion of several quarts of a milky fluid The left ovary presented a partly collapsed cyst, size of a pigeon's egg, from a small opening in which had escaped a very little dark colored semi fluid material The cyst was evidently old, with a thick, degenerated, friable wall I preserved and carefully examined the free abdominal fluid and the contents also of the cyst The abdominal fluid shewed abundant exudation cells and fine granules, amidst which were swimming innumerable large bacilli, in morphological characteristics, not unlike those of anthrax Abundance of similar bacilli were found in the contents of the cyst These were cultivated in bulbs and reproduced as a pure culture, unmixed with other bacterial forms There can be little doubt the cause of death was due to infection from this source

Case 2 —Miss W , aged 40, a patient in my private hospital, with large compound ovarian cyst of rapid growth with thin walls General health fair Careful examination of urine gave no evidence of renal disease

Operation was performed with strict antiseptic care Removal attended with difficulty, on account of adhesions and one or two cysts were unavoidably ruptured with partial escape of contents into abdominal cavity The peritoneal cavity was very carefully sponged with 1-1000 bichloride solution Operation followed by severe shock, but the patient rallied very well

Second day—urine free and normal, when the quantity rapidly diminished almost to suppression and became albuminous Temperature rose to 101°, and it was supposed that septicæmia had supervened

Third day—patient worse, cysts in urine, albumen abundant Temperature, however, scarcely exceeded 100° Death occurred 76 hours after operation

Autopsy showed absence of peritonitis Exudative repair had supervened in the stumps of both ovaries, but there was about two ounces of a reddish serum in the retro-uterine pouch This fluid was swimming with micrococci and colonies of the same were found in the kidney The surprise to me was, whence the infection, since the patient had not developed a general peritonitis, and care considered trustworthy to avoid infection had been scrupulously carried out during the operation The cyst had fortunately been preserved, immersed in a solution of 1-1000 bi chl of mercury, awaiting careful examination Fluid from an unruptured cyst contained active micrococci, undistinguishable from those found in the body after death These were cultivated in bulbs and reproduced in masses as well as in pairs Did death ensue from micrococcal poisoning from the cystic fluid escaping into the peritoneal cavity at the time of the operation?

Case 3 —F L , aged four and one half years, seen in consultation with Dr Z B Adams, of Framingham This case has been reported by him in the *Boston Medical and Surgical Journal*, for November 20th, 1884 Patient seized on the 17th of May with fever and diarrhœa Temp 104 Pulse 120 Evening temperature 105° Pulse 140 Stools slimy and containing mucus Continued very ill for four weeks, when I saw her At that time she was greatly emaciated, abdomen distended, walls tense, veins enlarged over surface Temp 103° Pulse 140 Extreme weakness Aspirated over a pint of creamy fluid, which, microscopically examined, contained abundance of micrococci, pus corpuscles often disintegrated, fine granules and fine oil globules Cultivated in bulbs, a pure culture actively reproducing in pairs only

Ten days later I assisted Dr Adams in making an exploratory incision, the slight gain which followed the aspiration having been lost and the child appearing *in extremis* About two quarts of fluid, similar in appearance to that aspirated, escaped, the abdominal cavity was washed out with a solution of mercuric-bichloride and the opening closed without drainage Temperature fell to normal and the patient rapidly improved

The twelfth day afterwards, however, there was a spontaneous opening, preceded by fever and suffering, and a discharge of considerable purulent fluid Thereafter the patient made an uninterrupted recovery and has continued well, is at present growing rapidly Whence came the micro organisms?

Are ovarian cysts to be considered no longer closed sacs? How can bacteria enter the unopened abdominal cavity? Have we in cystic fluid a hitherto unsuspected surgical danger ? I have consulted a number of our best observers, none of whom have discovered micro organisms in cystic abdominal fluid It may now be accepted that micrococci are always present in acute abscesses, and are probably to be considered causal But here we must provide soil as well as seed, and certain local changes in nutrition probably precede, devitalization from injury, prolonged irritation, as a foreign body, modifications of blood supply, etc Many experiments go to show that micrococci may be introduced into the circulation and be eliminated by the kidney without causing a serious injury to a healthy animal This is not difficult to explain, or accept as possible, since, to obtain development, a lodgment must be effected and retention at rest Stasis in the blood current in or about a local injury, as a bruise, or during the early stages of lactation in the turgid state of the mammary gland, so-called cold or inflammation gives readily the local condition favoring lodgment, and thus planted, the out-cropping is speedy and effective Although the presence and development of micrococci in the free fluid of the abdominal cavity and in ovarian cysts might thus be explained, it would be difficult to show how a bacillus of the size and virulence described in Case 1 found lodgment and retention in an old ovarian cyst, even if we consider as possible or even probable that they might enter by the way of the uterus and Fallopian tube

---

[1] Read in the Section on Surgery and Anatomy at the Thirty Sixth Annual Meeting of the American Medical Association

In reply to a letter addressed to our distinguished friend, Dr Drysdale, whose experience in the microscopic study of ovarian fluid is perhaps greater than that of any other observer, he informs me that he has not detected micro organisms in ovarian fluid However, without special means of examination, micrococci might be overlooked, and earlier, bacilli even would have been considered as accidental, confounded with bacteria termo and regarded as entirely unimportant It must, however, be considered exceptional that micro organisms are to be found in ovarian cysts, since observations of accidental rupture of large cysts without serious result are not infrequent Dr Hunter, in the *N Y Medical Journal*, April 4, 1885, in a very valuable paper entitled "Fifty Cases of Abdominal Section," reports as Case VIII, the rupture of the sac and disappearance of the tumor, a month later, when the refilled cyst was removed, the point of rupture, firmly closed, could be distinctly seen, and a quantity of the discharged ovarian fluid yet remained in the abdominal cavity No disturbance followed the rupture and no peritonitis supervened Dr Hunter justly observes that "this case illustrates the fact that the fluid contained in an ovarian cyst is not necessarily irritating to the peritonæum When this case was reported to the Obstetrical Society, several others were cited in which the peritonæum had tolerated the presence of ovarian fluid I have several times seen the abdominal cavity bathed in fluid from ovarian cysts ruptured during operations, without any bad consequences afterward "

In accord with a number of our best modern observers, I would relegate the so called "idiopathic peritonitis," with amaurosis and many another learned phrase, to the terra incognita of ignorance, and hope the last case cited above, although novel, may be suggestive of a possible surgical helpfulness, where at least medical treatment is confessedly unavailing

DISCUSSION

Dr W A Bird, of Illinois, stated that Dr Martin, of Berlin, was the first who proposed opening the abdominal cavity in cases of peritonitis The cases of Dr Marcy reminded him of an interesting case he had in 1882, which he saw at the time with Dr Beck The patient was a negro woman with a cystic abdominal tumor in the right side, he diagnosticated cyst of right ovary, and aspirated three pints of fluid from it A few days after she had what resembled malarial fever, the doctor, thinking that it might be best to remove the tumor, subjected her to the operation, after she had rallied from that attack He opened the abdominal cavity but found no trace of tumor The whole peritoneum was studded with millet seed looking objects which he took for tubercles After making a thorough examination he closed the cavity, and in doing this found great difficulty in bringing the cut edges together The woman made a perfect recovery The only diagnosis Dr Bird can suggest for this case is hydatid cyst, which was absorbed after aspiration

The speaker said that he had performed ovariotomy ten times, and had lost five cases, in none of the unfavorable cases had the tumor weighed less than thirty pounds He had operated for herniotomy twenty-six times with only three deaths, ten times he had cut into the intestines and none of those cases had died, he had once cut away ten inches of the gut, and the case had terminated favorably He thought that the trouble in all those cases of abdominal section was that they were operated on too late, he always operated soon and with his patient in good condition He had opened the abdomen seventy-six times and had lost eleven cases

Dr Hurtz thought Dr Bird's case was not a case of ovarian cyst, but one of hydronephrosis Dr Bird had probably aspirated the dilated ureter

Dr Bird said that he had, at the time of the operation, inspected the kidney and had found it normal, that it could not have been a case of hydronephrosis

Dr Beck, of Illinois, thought from what he had heard that the case he was going to mention was not out of place Some time ago a lady had come to consult him, with what he diagnosed a large simple cyst of the ovary, there were no complications, the uterus was of normal size He advised her to be operated on, and she had returned home to make necessary preparations for the operation One week after her departure he was telegraphed for by the lady's husband, who stated that his wife was dying He repaired immediately to the place and found the lady suffering with intense pain, the cyst was gone, and the swelling of the abdomen was more diffuse, the patient was almost collapsed She rallied, however, and in a short time got well, the tumor having completely disappeared This was evidently a case of rupture of the cyst, and afterwards absorption of the effused fluid Upon inquiring into the cause of the rupture, Dr Beck learned that on the evening before he was sent for, the husband had attempted to have intercourse with his wife, and that a too sudden pressure of the man's body on the woman's distended abdomen had caused the cyst to give way, this rupture had been accompanied with immediate intense pain

---

LACERATION OF THE FEMALE PERINEUM

BY H V SWERINGEN, A M , M D ,

OF FORT WAYNE, IND

At a meeting of the Indiana State Medical Society, in May, 1882, I read a very short paper on the above subject, in which I cited five cases in support of the position therein assumed, that the deferred operation was preferable to the immediate, and that neither was as frequently required as the profession generally supposed. In consequence of the very unpopular stand I took upon this subject, I was quite surprised, though agreeably, at the favor with which my paper was received by the Society. I must mention, however, one notable exception, a leading gynecologist of Indianapolis, and a prominent member of the Society, who was absent at the time it was read. This gentleman, a year later, while reading a paper on "Laceration of the Cervix Uteri," took occasion to refer to my paper of the previous year, and to express his regret that he was not present at its reading.

The paper was sent for publication to the *American Journal of Obstetrics*. Dr. Paul F. Mundé, the editor, wrote me that "while he thought the paper was worthy of publication and would publish it, he hoped the doctrine it promulgated would never be adopted by the profession, inasmuch as he did not think it sound."

In this paper I wrote as follows: "I am disposed to favor the deferred operation. The fact as to whether or not the immediate operation may not be considered one of the fashions of the healing art, can never be determined until nature has been given a fair opportunity to manifest her power in effecting spontaneous cures of ruptured perinei. I commenced the preparation of this report a week ago to-day, subject to the interruptions common to the practitioner. A mere glance at the literature of the subject was taken, Goodell and Thomas having been hastily consulted. But I am here to relate my *own* experience, and not that of the excellent authorities referred to, however difficult it may be to divest myself of that gregarious spirit which is disposed to follow in the track pointed out by a few leaders." (Here follow the cases, to which, for our present purpose, it will be unnecessary to refer.) I then proceeded as follows: "If natural, unaided parturition, which we must regard as a healthy, physiological function, is not infrequently followed by pathological and necrological results, the immediate closure of a ruptured perineum by sutures tends to favor these results by reason of the sources of infection their puncta create. The fact that in many instances these results do not follow this operative procedure, does not in the least detract from the soundness of the position here taken. An open, unsutured, non-uniting but cleanly rupture, is certainly not so likely to become infectious as a closed, sutured, ununiting and therefore uncleanly laceration, leaving out of the question the foci of infection produced by the the sutures alone. On this point Dr. Goodell says: 'The fears entertained by some physicians of septicæmia are purely hypothetical, for, although the suture tracks form, in one sense, new foci of infection, yet they close up a raw surface, whose area is vastly larger than theirs.'

"But there is a certain proportion of cases in which these raw surfaces, though sutured, do *not* unite, and in which the suture tracks therefore increase largely the area of exposed absorbing surface, and, hence, increase largely the risk of danger. It is in the interest of this certain proportion of cases that this subject should be discussed, for if it can be shown that one death in a thousand cases results from the immediate operation, and not one in ten thousand from the deferred, and that nature alone, if let alone, would be more frequently successful in effecting a cure, our rule of action is made plain. Parturition under the most favorable circumstances is attended with great risk, and if we can well postpone an operation which would have the least tendency to increase this risk, it is our duty so to do. If, then, it could be established beyond a reasonable doubt that, all things being equal, in all cases of ruptured perinei in which art succeeds in effecting an immediate union, *nature would likewise prove successful*, the immediate operation should never be attempted."

Such was my language in 1882, upon the occasion to which I have already referred, and the lapse of time since that date has not only wrought no change in, but abundantly strengthened my views upon this important, practical question. I am the more emboldened in the stand I then took, by having recently seen an article in the *New York Medical Record*, of June 20, 1885, upon the same subject, by Dr. Frank Hastings Hamilton, of New York. He says:

"*Immediate or Primary Operation.*—I cannot agree with some modern gynecologists, that it is better in such cases to proceed at once to close the rent by sutures, and for several reasons, some of which have already been anticipated. The parts have suffered such a degree of stretching and contusion as to render the occurrence of inflammatory reaction, if not of sloughing almost inevitable, the lochial discharges will make it impossible to keep the parts clean, the operation itself inflicts a severe injury when the condition of the patient is already critical from other causes, and finally, because under judicious management the rent frequently becomes partially and sufficiently closed spontaneously.

"If spontaneous closure of any portion of the rent takes place under these circumstances, it is probably not usually effected by the direct contact and immediate adhesion of the lacerated surfaces. The conditions are all unfavorable to this occurrence. Lacerated and contused wounds seldom unite by first intention, and the torn edges are too narrow and irregular to be placed and maintained in exact apposition, even with the aid of sutures. The surgeon encounters sufficient difficulty in securing this result even when, at a later day and under much more favorable circumstances, and after an extensive denudation of the surfaces, he attempts the closure by the aid of sutures. It is much more probable that the union occurs in these cases by the secondary process of granulation, the cicatrization and restoration commencing at the angle of the wound where the laceration terminated, and extending thence in the direction of the vaginal orifice. This is what happens usually in the case of a lateral incision, made for the purpose of enlarging the orifice of the mouth after certain plastic operations upon the lips, and which, without great care on the part of the surgeon, is certain to defeat his operation. Indeed, I have generally found it impossible to prevent the union of the parts thus divided, except by covering one of the raw surfaces with the mucous membrane dissected from the inside of the lips

"While, therefore, the accoucheur may be advised to maintain actual contact of the raw surfaces by position, in the remote hope that some adhesion may occur, there is not in this possible chance of small results a justification for operative surgical interference The parts should certainly not be needlessly or forcibly drawn asunder, but they may be carefully exposed to view each day, and made clean by gentle ablution, and the urine should be drawn by a flexible catheter as often as may be required for the relief of the patient, to whom nothing is more distressing than the contact of the urine with the raw surface of the wound

"In further support of the opinion above given, that an immediate operation is not in most cases, if ever, advisable, it must be explained more fully that, if it were possible to secure union by adhesion at this early period, the operation must be made within a few hours at most Hewitt ('Diseases of Women,' Sims' Amer ed, vol 1, p 462), who advises the early operation 'when the rent is at all considerable,' says 'the primary operation should be performed within one hour from birth, while the surfaces are still raw and bleeding' 'It is of very little use in inserting sutures when the labor has been over some hours, union rarely then occurs' This statement is doubtless correct, and my experience in a great variety of plastic operations compels me to doubt whether the operation will be any more successful if made within an hour The reasons for this opinion have already been assigned But we may properly ask Mr Hewitt what is to be done with that very considerable number of cases in which the expulsion of the placenta is delayed beyond an hour? Shall the rent be closed before it is expelled, at the risk of the sutures being torn out by its subsequent passage? Or is the accoucheur again to interfere with the course of nature, and, with more or less violence, as may become necessary, remove the placenta without reference to the present general condition of the patient or of the uterine contractions?

"From any point of view it comes to this, that it is proposed to make an operation, by no means trivial in its character, requiring, according to Hewson, two or three 'rather deep silver-wire sutures,' not to speak of the subsequent special management of the bowels required, and the removal of the sutures, and which operation at the best is very liable to fail, and which may subsequently, in case no operation is made, be found to have been unnecessary, if it becomes necessary, can be made more thoroughly and successfully at a later period—it is proposed, I say, to make the operation under every surgical disadvantage, and when the patient, prostrated and trembling from the results of a severe labor, is in the worst possible condition, both mentally and physically, to endure the shock of an operation, or even its announcement Nothing but the most urgent, imperative necessity can justify the operation under these circumstances, and this necessity has not been shown to exist It is proper, also, to add that not every accoucheur is competent to make an operation of this nature, and experts in this department of surgery can seldom be obtained within the hour assigned by Hewitt as the limit of its probable success This may not constitute an argument against the primary operation, but it may be pleasant to the accoucheur, who has omitted to perform it, to believe that happily it was not necessary or advisable At this early period, also, it is often difficult for an expert even to form anything like a definite opinion as to the actual extent of the lesion A rent, which at first seems to be an inch or two in length on account of the distended condition of the perineum, will, after contraction, a few hours later, be found to be not more than a quarter or half an inch"

Such is the language of Frank Hastings Hamilton, M D, L L D, written three years after my own paper on the same subject was read at Indianapolis My reasons for quoting his views *in extenso* can, therefore, be readily appreciated

Dr Harvey, in his paper on "Laceration of the Cervix Uteri" already noticed, and which was read a year subsequent to that of my own, spoke as follows "I regret that I could not possibly be present last year, when a paper was read on laceration of the female perineum If put together immediately after parturition, the parts will reunite and the perineum will be perfect before the patient leaves her bed Failure will not occur in one case out of a hundred if the operation is timely and properly performed I hold that it is the duty of the physician, instead of going off and saying 'I never had a case of lacerated perineum occur in my practice,' and instead of ignoring such cases and leaving women to suffer in after years, for fear he may be censured for not having so conducted the labor as to prevent the laceration, he should admit its presence, and explain that it is an accident of labor that may happen in the hands of the most skilful and experienced obstetrician

"Scanzoni states that he has prevented many cases from perineal laceration by making several incisions around the parts, probably, however, no obstetrician is sufficiently expert to prevent laceration, and our writers on gynecology and our teachers in medical colleges and societies, instead of teaching students and practitioners how they can always prevent laceration of the perineum, should say 'Gentlemen, you can not always prevent laceration of the perineum, it will happen in certain cases in spite of all your efforts to prevent it, all that you can do is to give chloroform and allow plenty of time to relax the parts' But when it does occur let us admit it, and explain to patients and friends that it is not an uncommon accident of labor, that the physician is always looking out for it and is there to restore it, and that if properly and immediately treated, the patient will be well in a week The physician who says that it will not heal by first intention, or that he don't get good union upon immediate restoration, has either not put it up properly, or does not know what he is talking about I may say here, and in no spirit of boasting, but only to impress upon you the necessity of immediate operation for your own defense and the relief of suffering women, that I have not had in a large practice in this line, but two failures, and these are not to be properly regarded as failures, there was in each case a little fistulous opening, which was readily cured by the after application of nitric acid"

Now, when views so diametrically opposed, upon a question of such practical importance, are presented to the young practitioner, it will be difficult for him to decide which course he had better pursue The rule is to follow the great majority That might, however, does not always make right, or that a doctrine that is quite generally accepted is not, therefore, necessarily a sound one, is nowhere more clearly illustrated than in the history of medicine The difference of opinion among physicians can frequently be very satisfactorily explained For example, a Philadelphia or a Chicago specialist—a gynæcologist, it may be—deals largely with what may be called "exceptional cases," *i e*, cases that prove decidedly exceptional to the general rule governing their etiology, pathology, history or treatment They may be cases of lacerated perinei sent to him by physicians from all parts of the country, whose treatment as a *general* rule, in the great *majority* of similar cases, has been eminently successful without resorting to operative procedure, cleanliness, and that apposition of the parts which is secured by the maintenance of a proper position of the patient, being all that was necessary Now, the specialist, being in almost constant contact with such "exceptional cases," no longer regards them as such, but looks upon them as representatives of the *rule* rather than of its exceptions, and hence forms and expresses his opinions accordingly, wholly unmindful of the vast number of cases that have escaped the results for which he is consulted

My experience in the field of obstetrics, though slight in comparison with that of many of my brethren, inclines me to the belief that, since the time of mother Eve, that woman never lived whose perineum was not more or less lacerated in giving birth to her first child at the full period of utero gestation I say "more or less" lacerated, by which I mean from the slightest tear or rent of the fourchette to the most complete rupture, including a division of the recto vaginal septum

In glancing over my obstetric record for the last two years, I find that in a little over two hundred cases, I have delivered by forceps in forty one, more than one fourth of whom, of the latter, were under the charge of other physicians, who did not fail to "wait upon nature" until the very last moment, and, in two instances, the babes were dead before sending for assistance

In each of those forceps deliveries, all of which were in cases of primiparæ, there was laceration, more or less extensive, principally "less," in several it seemed, upon first examination, sufficiently large to suggest the propriety of sutures, but subsequent investigation disclosed the fact that the rent was not so large as at first supposed In no case, in my opinion, was the rent any more extensive than it would have been had the forceps been unemployed, indeed, I have seen cases of far greater rupture in which there had been no instrumental interference In no case did I introduce a single suture, having resorted in every instance to simple cleanliness, and to keeping the patient confined to a lateral decubitus, with the knees together In a few cases I resorted to catheterism for several days, and to sprinkling a little iodoform over and around the rupture They all recovered promptly In one case only were sutures employed, not by myself or with my consent, but by the physician who had the case in charge, and who sent for me to deliver the same I did not see her subsequent to her delivery She did not get along as well as any one of the other cases, in the great majority of whom, however, the rent was inconsiderable, a mere rupture of the fourchette being the extent of laceration Whether or not the introduction of the sutures was the cause of her tardy recovery I shall not assume the province of determining Of one thing I am certain, however—that in the case cited in the paper I read before the State society the rupture was so extensive that for several days it was utterly impossible for her to retain her fæces, and yet the union of the divided parts was speedy and perfect without the use of a single suture

Thomas, in his valuable work on "Diseases of Women," page 129, writes "Even when the rupture has been complete, it has been asserted that spontaneous cure has taken place, but such reports need confirmation Peu once affirmed that he had seen a woman thus injured, and who passed her fæces involuntarily, entirely recover De la Motte declares that thirty years afterwards he met and examined Péu's patient in Normandy, and found that no recovery had occurred"

There are, doubtless, by reason of peculiar constitutional conditions, not a few cases in which neither the immediate, deferred, nor any other operation will be successful One would naturally suppose it difficult, by the immediate operation, to secure that perfect natural co aptation or apposition of the divided parts that we do, for instance, in suturing an incised or lacerated wound of the scalp The condition of the tissues involved in both cases is by no means the same, in the former case they are not in that state of quiescence which marks the condition of the latter, and hence the presence in them of sutures no doubt interferes with their gradual assumption of, or restoration to, the natural state, alters the original relative position of the parts, and thus gives rise to irritation, inflammation, suppuration, etc, all of which increases the dangers of the puerperal condition

The cases of rapid recovery *with* sutures are more than overbalanced by the cases of rapid recovery *without* them, and the cases of non-union *without* sutures are more than counterbalanced by the cases of non union *with* sutures In both of the latter groups of cases some general constitutional defect, scrofulous or what not, may lie at the bottom of and account for the failure of union by the first or second intent.

In view, then, of the foregoing, and of the fact that the lying-in woman has been compared to gunpowder, requiring but the spark to set it ablaze, who will—who can—question the propriety of allowing the puerperal condition to pass away before attempting the restoration of the lacerated perineum, especially when, in nine cases out of ten, if the proper precautions are taken, nature will render unnecessary *any* interference, either immediate or remote.

So far as the prophylaxis of ruptured perinei is concerned, I have no confidence in any. If in any sense I am a believer in the doctrine of predestination, it is in the matter of lacerated perinei in cases of primiparæ. If a perineum will not give sufficient to allow of the passage of the child's head, it will tear enough for the purpose, and that is all there is about it. As Josh Billings once said: "When a man begins to go down hill everything seems greased for the occasion," so, when a large head with sufficient *vis a tergo* or *vis a fronte* distends an obstinate, unwilling perineum, everything seems favorable for a rupture, and something must yield.

HOSPITAL REPORTS.

MERCY HOSPITAL, CHICAGO.

SERVICE OF EDMUND ANDREWS, M.D., LL.D., AND E. WYLLYS ANDREWS, A.M., M.D., SURGEONS IN CHARGE.

Case 1.—Diagnosis of Cancer by Chemical Tests Applied to the Blood.—In the *Allgemeine Wiener medizinische Zeitung*, of February 21, 1885, Dr. Ernst Freund claims to be able to detect carcinoma by the presence of sugar or glycogen in the blood, and sarcoma by finding in that fluid the presence of peptone. It is claimed that his method has stood victoriously the test of application to about one hundred different patients. If this method shall prove reasonably trustworthy it will be of immense importance in the diagnosis of tumors, especially of those located internally. Our first case is one of carcinoma. Six months ago we removed a moderate sized epithelioma of the lower lip. The wound healed and remained so to this day. No enlarged glands could be found below the jaw at the time, but now the patient returns to us with the whole upper part of the neck studded with cancers, two of which are in a state of fetid ulceration.

Dr. Frank T. Andrews, temporarily acting as Assistant Surgeon to the Clinic, took the investigation in hand, and commenced tests on different patients, but being called out of the city, committed the matter to Professor J. H. Long, of the Chair of Chemistry in the Chicago Medical College. Prof. Long, after a careful examination of a specimen of the blood by precipitating the albuminoids and then applying Fehling's test, reports sugar present, thus confirming Dr. Freund's statement.

Case 2.—Testing the Blood for Peptone in Sarcoma.—Freund asserts that in sarcoma the blood always contains peptone. Patient No. 21 appeared at the clinic with a large tumor deeply seated above the clavicle. It adhered to the transverse processes of the cervical vertebræ, and lay for three inches close against the internal jugular vein. From the fact that the tumor originated where no epithelial surface exists, and that in spite of its advanced condition no glands were infected, I inferred that it was a sarcoma. The microscopic examination confirmed the conclusion, and showed it to be of the spindle-celled variety. A specimen of the blood was sent to Prof. John H. Long, Professor of Chemistry in the Chicago Medical College, who first precipitated the albuminoids, and then applied the biuret test, which showed the presence of an abundance of peptone.

Remarks.—These are the only two cases of tumor which we have yet subjected to Freund's tests, but it is significant that they confirm his discovery in the most striking manner. We shall continue the investigation, and if Prof. Long's future analyses establish the truth of the discovery, it will be a very important step in surgical progress. In that case, malignant tumors can be diagnosticated in interior cavities and the question of an operation decided on an intelligent basis, and even in external tumors, a trustworthy method of determining whether they are or are not malignant will be of the highest importance.

Case 3.—Laparotomy for Gunshot Wound of the Abdomen.—Some months ago we reported two cases of gunshot wound of the abdomen which recovered easily without any operation. The first wound was made by a 22 calibre bullet which entered on the linea alba between the umbilicus and the xiphoid cartilage, traversing directly backwards. The stomach was empty. Considerable shock ensued, but no vomiting. The patient was treated by opiates and starvation. On the tenth day he passed the bullet per anum. He recovered without a sign of peritonitis.

The second case had a 38 calibre bullet shot completely through the body on nearly the same line as the previous one. Laparotomy was proposed to him, but he refused it. His stomach had no food in it at the time of the shot, but he had taken considerable beer. As he rejected the operation, he was placed on starvation and opiates, and recovered without a bad symptom.

The present patient received a 38 calibre shot which entered through the border of the cartilages of the ribs upward and to the left of the umbilicus, the bullet apparently passing close to the anterior border of the left lobe of the liver and directly towards the stomach near its greater extremity. The projectile went entirely through the body, passing out of the back at a point opposite, but two inches lower than the place of entry, and on the same side. The patient was visited by Dr. Webb and another well educated physician, who both testify that he vomited blood in considerable quantity, and suffered a moderately severe shock. He appeared at the clinic fifteen hours after the injury. So far as could be learned the stomach contained no food at the time of receiving the wound, but as he was said to drink about fifteen glasses of beer daily, some of that *life* giving fluid was doubtless present. On his arrival there was a slight elevation of temperature, and pressure detected a diffused tenderness of the abdomen, extending down to the iliac region on the right side. The pain, however, was moderate, and the decubitus was not that of decided peritonitis, as he showed no desire to draw up the knees

On consideration, it was judged best to examine the viscera by laparotomy Adopting all the usual antiseptic precautions except the spray, an incision was made along the linea alba between the xiphoid cartilage and the umbilicus The inner orifice of the track of the bullet was found on the interior surface of the cartilages of the ribs, close to the edge of the left lobe of the liver, but not wounding the latter Considerable bloody serum was sponged out, but there were no clots, and nothing like the contents of the stomach or of the intestines could be found On drawing the left end of the stomach forwards as far as it would come without violence, we failed to discover any perforation, though there were portions which could not be thoroughly searched The stomach was slightly distended with flatus and liquid, but none of it escaped into the abdomen on making gentle pressure If the organ was perforated, it was obviously by a valve shaped wound, which prevented leakage The incision was antiseptically closed and dressed, and the patient treated by starvation and opiates Immediately after the operation he vomited freely, throwing up mucus, water and bile but no blood It is now the sixth day after the injury, and the patient has entirely recovered from his slight early appearances of peritonitis, but he is fully under the influence of delirium tremens, due probably to his enormous potations of beer, since his acquaintances assert that he drank no distilled liquors

It is clear that the first two patients suffered nothing from the omission of laparotomy, and it is not clear that the third derived any benefit from it True, there was removed some bloody serum, but blood which has not been exposed to the septic germs of the atmosphere by laparotomy is often absorbed without trouble My observations lead me to think that pistol shots may often penetrate the rather thick walls of the stomach without allowing any escape of its contents, while the same sized bullet traversing the intestines, which are exceedingly thin, will instantly let out the gases and other materials within them In military practice I personally saw no recoveries from the penetrating abdominal wounds made by the great army bullets, yet even military cases are not so desperate as one would think from the size of the projectiles "The Medical and Surgical History of the War of the Rebellion" tabulates 79 cases of penetrating shot wounds of the stomach, of which 24 per cent recovered without operation, while of 653 shot wounds opening the thin walled intestines only 11 per cent recovered, showing the great difference in behavior between wounds of the two classes of viscera At that period laparotomy was scarcely heard of Billings collected nine military cases of shot wounds of the intestines which were operated on, of these five died and four survived Even this was better than the let-alone policy, but at the present time a much greater success could be achieved

The facts point to the following conclusions

1 Shot wounds of the stomach are less dangerous than those of the intestines

2 The causes of death in abdominal wounds are mainly hæmorrhage, shock, and peritonitis from effusion of the contents of the viscera

3 In the majority of cases, the danger will be greatly diminished by laparotomy, generally performed at the linea alba

4 The first incision may be small, to establish the diagnosis, and if hæmorrhage or visceral effusion is found, the opening may be enlarged to enable one to tie vessels, to sew up the perforations, or to excise ruined segments, and to clean out the effusions The moderate exploratory incision is not of itself very dangerous, if properly performed, but if it show escape of the contents of the intestines or stomach into the peritoneal cavity, it offers the only reasonable chance of saving the life

Case 4 —Ligature of the Vertebral Artery for Epilepsy —I formerly reported two cases of desperate epilepsy greatly benefited by ligature of a vertebral artery between the atlas and the axis Mr W Alexander, of Liverpool Workhouse Hospital, reports 21 cases operated on by him, of which three were cured, three failed, and all the rest were benefited None died (*Brain*, Vol V)

The present patient is an adult male, under the skilful treatment of Dr Cooper, of Batavia The fits recurred from twelve to fifteen times a week, and the mind was giving way At Dr Cooper's request I operated on him, selecting the left vertebral The case showed a remarkable tendency to hæmorrhage, especially from enlarged venous trunks, which oozed and gushed so obstinately that they rendered the operation very slow and tedious When the artery was tied, there was pallor, shock, and an external strabismus to be observed in the eyes, as also happened in one of the cases previously reported The wound was dressed antiseptically and the patient placed in bed At the end of a week he left for home, not a single paroxysm having occurred after the operation during a period in which he usually had twelve or fifteen It is of course too early to judge of final results, but I have strong hopes of decided benefit from the effort

MEDICAL PROGRESS

ANATOMY AND PHYSIOLOGY

The Respiratory Centre —Nitschmann (*Archiv f d gesammte Physiologie*, Bd xxxv, S 558) admits, with Langendorff, the existence of spinal nerve centres presiding over the function of respiration These spinal centres may be divided longitudinally without causing any change in the respiratory movements, but on condition that the division is exactly in the median line But if the instrument deviates to the slightest extent to one side, the respiratory muscles of the side are paralysed, and the respiration becomes unilateral This holds good of sections made above the fourth cervical vertebra

If the medulla and calamus scriptorius be divided longitudinally, respiration continues normally, the muscles of the right and left sides contracting simultaneously. The respiratory reflexes following irritation of the sciatic are strictly bilateral, the two halves of the diaphragm contracting at the same time. On the contrary, the reflexes originating in the pnuemogastric, the trifacial or the nerves of the brachial plexus act unequally on the respiratory muscles of the two sides; respiration becomes unequal.

After section of the medulla alone, irritation of the brachial nerves does not cause asymmetry of the respiratory reflexes. Section of the cervical portion of the cord alone is also insufficient to cause asymmetry of the reflexes.—*Revue des Sciences Medicales*, July, 1885.

MEDICINE

Cocaine in Affections of the Upper Respiratory Passages.—Dr. J. Strahan, in a short article on this subject, says: The fact that Jellinek has produced complete anæsthesia of the larynx by the application of cocaine, points to a vast field of usefulness for that drug, not hitherto explored. To secure anæsthesia of the larynx, epiglottis, palate, and pharynx, must prove an invaluable boon to the profession and the patient, in the immediate future. Even the action of carbolic lotion or lozenge in throat-affections, as an anæsthetic, is by no means to be despised; so that we can easily imagine the comfort, relief of pain, and even avoidance of danger to life in cases of spasm of the glottis, likely to result from the use of cocaine. It has been used with perfect success in operative procedures about the larynx, but has not yet been tried for either diphtheria or croup. It is obvious what a boon the addition of cocaine applications would be to any plan of treatment. It could be applied either by ordinary swabbing with a four per cent. solution, or by insufflation with the dry powder; or the solution could be sprayed when we wished to reach far down. Even if the applications have to be made as often as every half-hour, for a little, the trouble would be as nothing compared with the ease and safety of the patient. In case of necessity, the nurse could apply it perfectly well in any form, if taught. The addition of a couple of drops of chloroform (a solvent of cocaine), to the ounce, would prevent the formation of fungus in the solution, as it does in the case of solutions of atropia, morphia, strychnia, tartarated antimony, and indeed all solutions usually spoiled by fungi. This would conduce to economy, as the solution without any preservative soon spoils, and is then liable to excite acute inflammation in mucous membranes instead of curing it. Of course the chloroform must be dissolved in the alkaloidal solution, by agitation in a bottle not more than three quarters full. This amount of chloroform causes no irritation, even in the eye, as I constantly use preserved solution of atropia, without causing the slightest pain.

We have now evidence that a four per cent. solution of cocaine painted on the nasal mucous membrane, besides causing anæsthesia, contracts the capillaries, drives out the blood, and causes a membrane swollen and red to become shrunken and pale. In coryza, even where the nares are obstructed by swelling, a strip of lint, soaked in the solution and pushed into the anterior nares, speedily removes the swelling, permits the passage of the breath, and, repeated once or twice, even permanently cures the disease. From these considerations, it seems to me that cocaine is destined to become an indispensable aid in all acute inflammatory diseases of the upper respiratory passages. In laryngitis, croup, diphtheria, scald of the larynx, simple or reflex spasm of the glottis, and even in chronic laryngeal affections, life often depends on the absence of fits of spasm; and the only remedy, when it occurs often enough or severely enough to threaten life, is tracheotomy. If cocaine, by inducing complete anæsthesia of the parts, prevents these spasms even in part, it will be an invaluable addition to the treatment of these diseases. We have some evidence that it will do so, from the fact that the imperfect means on which we have hitherto had to rely for anæsthetising the larynx, pharynx, etc.—namely, bromides and chloral—do very markedly diminish the tendency to spasm of the glottis in croup, for instance. For that reason among others, I am of opinion that a combination of bromide of potassium and hydrate of chloral constitutes the very best treatment for croup—at least, so far as systemic remedies go. The bromide diminishes the number and intensity of the laryngeal spasms. The chloral, in addition, acts as perhaps the most powerful antiphlogistic we have in such cases; it greatly reduces arterial blood-pressure, diminishes body-temperature, and acts as a powerful germicide, both generally and locally. The local use of cocaine, and the constant inhalation of some efficient antiseptic vapor, such as that of eucalyptus oil, or of turpentine and tar, in addition to the internal treatment described, and with proper attention to alimentation, would seem to me to be an almost perfect therapeutic plan for diphtheria, croup, and many other diseases of the respiratory passages.—*British Medical Journal*, June 13, 1885.

Treatment of Cholera During the Algid Period.—Dr. Georges Rigoletti attributes the principal symptoms of the algid period of cholera, such as lowering of the temperature of the exterior of the body, cyanosis, change of countenance, inextinguishable thirst, difficulty of respiration, epigastric constriction, hiccough, vomiting, muscular cramp, prostration, general collapse, and paralysis of the heart, to a lack of the normal proportion of water in the blood. Two indications correspond to the symptomatology:

1. To restore to the tissues their normal water, and to the blood its normal serum, in order that it may perform its functions.
2. To excite the nervous force and to stimulate the heart. To fulfil these indications Dr. Rigoletti proposes the hot bath, containing ammonia and wood ashes.

The bath is prepared with water of a temperature ranging from 100.4° F. to 104° F., about one quart of aqua ammonia and a sufficient quantity of wood ashes. The duration of the bath is from fifteen to twenty five minutes, and it may be renewed in the same day, and for many days in succession, according to the case. To avoid the ammoniacal vapors, the patient is so covered as to prevent their reaching the head. The patient, on being removed from the bath, is covered with warm blankets, which favor and maintain reaction. Frictions with camphorated alcohol are also to be practised, and aromatic infusion of chamomile and spirits are to be administered. If the reaction come on too violently, it is to be moderated by ordinary measures. The efficacy of the bath is more prompt when the algid state is least advanced. The method was used in 1884 with much success in the epidemic at Naples, and the official report as to its value is as follows:

1. The hot alkaline bath administered at the beginning of the algid period stimulates the peripheral circulation and increases the power of reaction.
2. The nervous forces are strengthened; the patient is so much relieved that many times during the day he requests the bath; the constriction of the epigastrium diminishes and disappears.
3. The pulse, often imperceptible, is gradually strengthened; the features become more natural, and the face even sometimes becomes flushed. Anuria almost always ceases in the bath.
4. Diarrhœa continues, but the vomiting and hiccough disappear with the administration of the bath.
5. The ammoniacal vapors excite cough and interfere with respiration, and for this reason it is necessary to protect the patient from them. However, the effect of the vapors is beneficial in that they increase the power of the voice, and render it less rough and more intelligible. In conclusion, the hot alkaline bath is a powerful therapeutic agent in the algid period of cholera, and its effects are most constant.

Dr. Rigoletti concludes his paper by stating that reaction, under treatment with the bath, is always *prompt*, occurring within twenty-five minutes; *complete*, as shown by the disappearance of all algid symptoms; and *constant*, having never failed in twenty-three cases in which the algid condition was treated by its use. He considers it the remedy, *par excellence*, for the period of the disease, and much superior to the intra-venous injections of salt water proposed by Dr. Hayem and to the subcutaneous alkaline injections of hot water suggested by Prof. Cantani.—*Journal de Médecine de Paris*, May 10, 1885. *Am. Journ. Med. Sciences*, July, 1885.

The Hygienic and Climatic Treatment of Pulmonary Phthisis.—This year's Croonian Lectures were delivered before the Royal College of Physicians in London by Dr. Hermann Weber. By pulmonary phthisis the author means a chronic disease of the lungs, with consolidation beginning almost always at the apex, having a tendency to caseation, softening, and the formation of cavities, or of fibrous changes; all the changes may occur in the same individual at the same time in different parts of the lungs, or may follow one another at different periods of the disease. These changes are mostly found associated with the tubercle bacillus, discovered by Koch, and are intimately connected with a state of mal-nutrition of the whole organism, especially the cells and tissue of the lungs. There is no doubt that the bacillus is intimately connected with phthisis, but the exact relations appear to require further elucidation, as to why it thrives in some persons and not in others; or why it thrives in a person at one time and not at another. It is known that the range of temperature within which the bacillus of tubercle can grow is much more restricted than in the case of some of the other bacilli. Its growth entirely ceases below about 82° F., and above 107° F.; it thrives best at about 97° F. to 100° F. A further point against the spread of the tubercle bacillus out of the animal body is that it does not form spores in the air. When there is any catarrh of the mucous membrane of the bronchi, and especially of the smaller divisions, and when the expiration is imperfectly performed, the bacillus finds a favorable opportunity for its development. The lecturer then shows that many cases of phthisis are certainly curable; and in the *post-mortem* room many instances are familiar to every one of old phthisical cavities having healed. With reference to treatment, it is impossible to restrict ourselves to that of the developed disease, and to pass over the preventive treatment. In many cases this is the only chance, for, when the disease is once established, in some constitutions it runs a rapid course. The poor have far less hope of recovery than the rich; and, contrary to what is the case in many diseases, existing hospitals cannot put the poor on a par with the rich in the question of the treatment of phthisis. That phthisis is capable of being transmitted from patient to patient is an accepted fact, in the author's mind, and numerous precautions are laid down with reference to the manner in which persons suffering with the disease should behave when living among those either with or without hereditary tendencies. The second lecture commences with the curative treatment of phthisis. This subject is divided under five headings: 1. Diet; 2. Air and ventilation; 3. Exercise; 4. Management of skin, clothing, etc.; 5. Climate. Food should be taken in small quantities and often, and the appetite should be humored as much as possible; milk is the most important article. Fresh air, good ventilation, and healthy exercise without fatigue, are essential. With regard to climate, the most essential feature is the purity of the air from floating matter. A soothing climate is not so good as a tonic one; it should allow the patient to remain in the open air, and at the same time enable him to take exercise and to gain an appetite. The author speaks very strongly on the use of alcohol by phthisical patients, and is convinced that in health alcohol is rarely necessary, but that in phthisis, especially in the febrile stage, it is of the greatest use, as long as the kidneys are sound. The third lecture deals with the effects of climate, and commences with the remarks on the beneficial results produced by the dry cold of the Alps in winter on phthisical patients. Altitude climates are recommended in hereditary and acquired tendency to phthisis, but in advanced or complicated cases no benefit is derived from them. After mentioning several health resorts, the author concludes by remarking that the climate of several places in Great Britain is good for the prevention of the disease, but not for developed cases The health resorts on the southern coast lack the necessary arrangements required to render them suitable for consumptives, and Dr Weber urges the medical profession to use their influence in securing the erection of well-arranged houses with suitable balconies, verandas, covered walks, seats, etc, and with shelters from cold winds, so that those who cannot afford a journey abroad may reap the full benefit derivable from home climate —*London Medical Record*, June 15, 1885

Reduced Iron in the Treatment of Anæmia —Dr John W Martin, of Sheffield, England, states in the *Medical Press and Circular* of December 3d, 1884, that for some time he has been using reduced iron in the treatment of anæmia with the greatest success, and thinks that it is one of the most powerful remedies which we possess in restoring the condition of the blood in all anæmic states of the system He has employed it chiefly in chlorosis, amenorrhœa, chorea and enlargement of the spleen following intermittent fever, and states that with the exception of those cases in which the impoverishment of the blood has been due to nursing, the cases in which he has found this form of iron most serviceable are those of young girls and women of chlorotic tendencies, and in women who have reached the change of life, in whom, beyond an unexplainable failure in the powers of nutrition, no organic disease is discernible According to him, administration of this drug has been followed by symptoms of improvement within 48 hours, and the patients have steadily progressed to convalescence without change of treatment When a tendency to constipation is present this may be best overcome by the use of the following mixture

℞ Magnesii sulph ʒ iiss
Magnesii carb ℥ ij
Tr nucis vom, mxl
Sp amm aromat,
Tr cardamomi aa ℥ ij
Aq menth pip, ad ℥ viij
M ℥ i bis die

The iron is usually given in the form of a pill, of which the ingredients and the strength of their dosage may be varied as circumstances may demand The following prescription is that which he has found most serviceable

℞ Ferri redact grs iiss
Ext nucis vom, gr ⅛
Ext quassiæ, q s

M ft pil no xij

S —One to be taken three times a day at meal times

Cocaine in Hay Fever —Dr Wm S Paget says, in the *British Medical Journal*, of June 27, in regard to the use of cocaine in hay fever To alleviate the itching and burning of the eyelids (always an early and prominent symptom) I use a two per cent solution, and apply it, by means of a camel's hair brush or the tip of the finger, to the margins of the lids, dabbing a little into the eye at the inner canthus If too much be not used, there is no inconvenience from dilatation of the pupil, the remedy is thus applied as often as the symptoms present themselves For the relief of the nasal symptoms I have used a four per cent solution, introducing a couple of drops into each nostril by means of an eye-dropper, holding the head well back, and sniffing it up It is well to have only a small quantity (for example ʒj) of these solutions made up at once, and the little bottles are conveniently carried about for use at any time The use of goggles to protect the eyes from glare and dust is also most important, and they should be worn regularly, whenever the light is bright, from the commencement of the disease until the susceptibility has passed away

Treatment of Erythema Nodosum —Mr W E Buck says that the raised patches of erythema nodosum which are generally found over the tibiæ, are sometimes very painful, and are usually slow in receding He has acted in accordance with the belief that this disease is due to inflammation of the lymphatic vessels and spaces, and that it is more closely allied to erysipelas than to any other disease, he has, therefore, treated it antiseptically with sulphurous acid In three cases, treated in this manner, he has met with marked success, the pain being relieved, and the patches rapidly subsiding

His method is to soak lint in a mixture of equal parts of fresh sulphurous acid of the *British Pharmacopæia* and hot water, heated to boiling-point, the lint is then wrung out, and placed over the patches When it cools, it is changed for another piece —*British Medical Journal*, June 27, 1885

SURGERY

Treatment by Section of Hydrocele by the Antiseptic Method—Mr Edward Bellamy, in discussing the treatment by section of hydrocele by the antiseptic method, says The few remarks I make are based upon the results of a considerable number of cases I have treated, both in hospital and in private practice, in the early and later stages of hydrocele, by which latter I mean those which have been repeatedly tapped, and in most cases injected It is hardly necessary to take up space by instancing the individual cases It is certainly time that the old-fashioned method of tapping, and the supposed radical cure by continuous injection, was done away with, as painful, dilatory, and generally useless I claim no originality whatever in this treatment I desire to call the attention of practitioners to the fact that they should invariably adopt the method of free incision with strict antiseptic precautions, and I cannot understand why it is not more universally carried out Every surgeon knows of the method, but, as far as I see, contents himself with adhering to the usual proceedings There is no danger in it An anæsthetic can be given if necessary, the healing is rapid, the cure almost certain, if not absolutely so The operation is as follows The diagnosis, of course, being established, the scrotum should be shaved, and (if the surgeon thinks necessary) the spray used, the tumor is firmly grasped, so as to render the parts as tense as possible. A clean sweep through all the scrotal tissues is then made with the bistoury, from the cord to the base, and the fluid escapes. Every bleeding vessel, however small, must be twisted or tied most scrupulously, and the interior of the sac carefully examined for any vessel which may have been wounded or have given way. The cavity should then, not too tensely, be stuffed with lint soaked in 1 in 40 carbolised oil or gauze, and the upper part of the edges of the wound stitched together, including all tissues—I do not see any advantage in stitching the cut edges of the sac to the sides of the wound—a small tag of the contents being left out of the most dependent part on the contingency of drainage, a pad of salicylic wool placed over all, and the scrotum supported by a cushion between the thighs. In a couple of days the parts may be dressed (under spray, if thought desirable), and the contents of the sac withdrawn. As a rule, considerable contraction of the walls of the sac will have set in, but it is advisable still to introduce the antiseptic material so long as any appreciable cavity exists, and this is generally for about a week in very favorable cases, when it will be found impossible to pass anything into it and merely the lips of the original wound are left to close. Tubal drainage is, I venture to think, unnecessary. I have not yet met with any untoward constitutional symptoms by adopting this method, which is equally applicable to encysted hydrocele of the cord.—*Lancet*, July 4, 1885; *Med News*, Aug 1, 1885.

OBSTETRICS AND GYNÆCOLOGY

SYPHILIS AND TABES.—PROFESSOR EULENBURG has recently published an article on the relation between syphilis and locomotor ataxia (*Virchow's Archiv*, January, 1885). The following are his views: 1. There is an absolute and relatively somewhat large percentage of tabetic patients who have suffered from syphilis; the number of these is considerably larger than was generally admitted until within the last few years. 2. The exact relation of syphilis to tabes is uncertain. Probably in most cases syphilis acts only as a debilitating predisposing cause, like many other agencies—such as heredity, mental affections etc., but perhaps in some instances syphilis is the direct cause of tabes. 3. At any rate, syphilis can hardly be considered to be the most frequent and most important cause of tabes. 4. The cases of tabes which have been preceded by syphilis present no constant and characteristic symptoms, nor any peculiarity in their course, by which they can be distinguished from other (non syphilitic) cases. 5. As regards prognosis and treatment, also, there is no clear and characteristic distinction between the two classes of cases. Those with syphilitic antecedents may in certain circumstances improve, perhaps even recover, either with or without specific treatment, while, as a rule, such treatment is either of no avail or only attended by temporary benefit. 6. The investigation of the etiology and pathogeny of tabes in relation to syphilis, which has been prominent of late years, has not yet afforded any definite solution of the question; nor, according to the experience of the author, can the discussion be said to have yet led to any permanent result as regards the best treatment of tabes.—*Medical Record*, July 4, 1885.

DISEASES OF THE PLACENTA AND CORD CAUSED BY SYPHILIS.—DR SAXINGER (Tubingen, 1884), has published the results of his studies in this affection, with the following conclusions:

1. There exists a placental syphilis, which, in a fair proportion of cases, is recognizable on macroscopic examination.

2. Placental syphilis generally accompanies fœtal syphilis. It is also found in maternal syphilis with a healthy child.

3. The placenta may be diseased in an isolated lobe and throughout its density, or solely in its fœtal portion, or its maternal portion.

a. If the mother has been infected by the fecundating coitus, with the fœtal syphilis, the placenta is found to be more or less diseased throughout. Ordinarily the umbilical vessels themselves are diseased.

b. If the mother is not infected generally, besides the fœtal syphilis, only the fœtal placenta and the cord are diseased. Nevertheless, the morbid process may extend to the maternal placenta, and infect the mother by intra uterine repercussion.

c. If the mother has been infected some little time before conception, if the mother has been fecundated by a healthy man before the outbreak of general symptoms, and if she has undergone treatment during pregnancy, a healthy child may be born to her. Here the maternal portion of the placenta is generally the only one diseased.

d. If the mother has been infected some considerable time before the fecundating coitus, ordinarily it is the placenta alone which is diseased. Under the influence of the progress of the morbid process, the fœtal placenta and the whole of the placenta may be involved in turn, and the fœtus participate in the infection, if indeed, from the disturbance of the circulation, it is not destroyed.

e. If the mother is fecundated by a healthy man, and if she is not infected until later, in spite of the immunity of the fœtus, the placenta is always diseased, however slightly. When the mother is syphilitic, the placenta does not escape, unless the mother be infected at a period very near to her time of delivery.

4. It is not proved positively that a woman can be infected by the passage of a syphilitic child through the genital organs, nor that a child can be infected during delivery.

5. Experience shows that children conceived during the first years of acquired syphilis, or badly treated syphilis of the parents, die during intra-uterine life, or are born non-viable. A mercurial treatment which is well directed may interrupt this transmission at all periods, or maintain a condition that is latent for years. If syphilis remains so latent in an organ, it is possible, after appropriate mercurial treatment, to see healthy children born, and later syphilitic children.—*Archives de Tocologie*, June, 1885.

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE, INCLUDING POSTAGE.

PER ANNUM, IN ADVANCE $5.00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address,
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 65 RANDOLPH STREET,
CHICAGO, ILLINOIS.

SATURDAY, AUGUST 15, 1885.

THE TREATMENT OF PHTHISIS BY CLIMATES OF LOW ALTITUDE WITH MODERATE ATMOSPHERIC PRESSURE.

In a previous editorial article we endeavored to show that Jaccoud is of the firm conviction that "from a therapeutic point of view the fundamental indication" for treatment of tuberculosis "should be drawn from the atmospheric pressure rather than from the temperature, and that the climates with slight and those with a moderate degree of atmospheric pressure should be specially separated. The climates belonging to the first group are all severe in winter, but differ notably from each other in atmospheric pressure, which diminishes, as the height of the places varies from 1,650 feet, as in the more northern latitudes, to more than 4,900 feet." In the second group he places health resorts ranging in height from the level of the sea to 1,300 feet above. In these places the atmospheric pressure is moderate, "while the temperature is cool, temperate or warm in winter, hot or scorching in summer."

The effect of high climates he regards as more distinctly curative than that of low climates, which is passive or at the most but protective. In the utilization of resorts of the second group he deplores the habit of varying the residence with the change of seasons, and advocates a fixed abode in whatever locality is found to suit individual peculiarities. Care should also be taken that the accommodations be comfortable and hygienic. Of all low stations Madeira fulfils best the indications required for prolonged residence. Places by the river at the eastern extremity of Lake of Geneva, various cities above, Méran in the Tyrol, Lugano in Switzerland, and the localities immediately surrounding, are likewise more or less satisfactory. It would seem that Pisa by the side of the Apennines, Pau near the valley of the Pyrenees, the Riviera on the shore of the Mediterranean, are also admirably suited to a fixed abode, but for several reasons residence there can not be prolonged beyond the close of spring. While recognizing the importance of a fixed residence in a suitable climate, an infringement of this rule is less deleterious in places of the second group than in those of high altitudes. Hence, if individual conditions require a sojourn for the winter in a southern latitude, as in Egypt, Algiers or Sicily, a return to a temperate climate will have to be made for the summer. But such a return must be cautiously effected, the invalid waiting until the changeable weather of April and May is past. Most reprehensible is the plan of sending a patient from residence on the plains during the winter to the mountains for the summer. Local conditions important to the invalid's welfare are: that the place of abode be in the outskirts of the town where the atmosphere is uncontaminated, that the chambers be airy and well ventilated, the water closets, bath-rooms, wash-stands, bed clothing, etc., thoroughly disinfected; that there be ample accommodations for out door life, even in rainy weather; that not only excellent medical attention can be secured, but that appliances for aero-therapeutic and hydropathic treatment be at hand; that there be an abundant supply of fresh milk, and that the food be of the best quality. This last consideration makes the Canary Islands and Morocco unsuitable.

As previously stated, the effect of climates of the second group is solely preservative, not curative or prophylactic; hence, inferior to that of considerable altitude. Like that of elevated climates it is twofold. The local effect is to lessen irritability and consequently irritation of the bronchial mucous membranes, while the general or constitutional benefit is due to life in the open air together with plenty of sunshine even in the winter. In order to secure this two fold benefit, certain climatic conditions are requisite, as well as those of environment and hygiene already considered. These are, uniformity of temperature, of hygrometic conditions, freedom from winds, and comparative dryness of the atmosphere. Daily oscillations of the thermometer of more than nine degrees are deleterious, and accordingly a temperature ranging between 40° F. and 50° F. is preferrable to one with daily extremes of 60° F. and 75° F. Marked hygrometric variations subjects the consumptive to much discomfort, if not danger. On the other hand, too great dryness of the atmosphere favors so rapid an evaporation of the fluids of the body, both through the skin and lungs, as to produce irritation of the bronchial mucous membrane Hence, Jaccoud is of the opinion that the hygrometric status should be ranged between 70° and 80° This statement refers particularly, however, to temperate or hot climates, since the degree of humidity that can be well borne depends upon the degree of the temperature Freedom from severe winds is also of importance, since they not only expose the invalid to the danger of becoming unexpectedly chilled, but create dust which is a direct irritant to the respiratory passages

The necessity of selecting a resort whose climatic conditions will conduce to a local improvement of the diseased organs is not the only consideration, the effect upon the general health must be taken into account as well "If the importance which has been ascribed to constitutional malnutrition as regards the origin of the disease be borne in mind, and the great value which should consequently be attached to the general condition of the patient, it will easily be understood that the question whether the effect is to strengthen or debilitate should hold a large place in the consideration of climatic treatment" The exciting or strengthening effect of a climate and the weakening or sedative effect are often confused "The exciting or sedative effect is dependent upon the condition of the nervous and vascular systems" and the state of the respiratory passages as respects irritation, while the fortifying or debilitating effect is determined by the nutrition and strength of the individual True, the exciting and strengthening or the sedative and debilitating effect may be united in the same climate, but this combination is rare Egypt, whose climate is most exciting, is, at the same time, weakening On the contrary, Madeira has a sedative and fortifying climate Algiers and the Riviera are, like Egypt, exciting but not tonic Such are Jaccoud's conclusions concerning these popular health resorts, while, on the other hand, he considers Meran and Montreux invigorating as well as exciting If the climatic effect be too exciting, it is seen "in physical and moral agitation, in susceptibility which is so pronounced as to be painful, in continuous insomnia, often in headache, acceleration or irregularity of the respiratory and circulatory rhythm, and lastly, and undoubtedly, in irritability of the larynx and bronchial tubes" The conditions necessary, then, to a desirable result are "meteorological uniformity in every sense, with absence of dust as respects the local, and fortifying action, with little or no exciting influence, as regards the general effect"

In conclusion of this subject we give a summary of the various health resorts which Jaccoud classifies under his several groups Falkenstein, in the Taunus, at a height of 1,640 feet, Gurbersdorf, in Silesia, 1,830 feet, Aussee, in Styria, 2,300 feet, Gaudal, in Norway, 2,640 feet, Davos Platz, in Switzerland, 5,100 feet, Samaden and St Moritz, in Switzerland, in the upper Engadine, 5,720 and 6,090 feet, are comprised in the first group Though the first four do not have an altitude sufficient to confer immunity from phthisis, they have other characteristics that render them beneficial when the higher resorts are not advisable Méran and Montreaux are invigorating and slightly exciting Madeira is strengthening but sedative Egypt, Algiers, Sicily and the Riviera are exciting and but slightly tonic, while Pau and Pisa possess negative qualities

In endeavoring to summarize so important and discursively considered a subject as is this portion of Jaccoud's work, we have necessarily omitted much of great interest, and we would recommend such of our readers who are specially concerned in this question to peruse the author's own words It would be well if someone would carefully investigate the climatic possibilities of our own health resorts, and give the profession the benefit of his conclusions

SOME POINTS IN THE TREATMENT OF UTERINE FIBROMYOMATA

At the meeting of the British Gynæcological Society, on April 22, 1885, Dr Thomas More Madden, of Dublin, read an interesting paper, entitled "Some Points in the Treatment of Uterine Fibromyomata" After making the general assertion that "every growth of this kind is primarily an interstitial myoma, which in the course of time becomes more or less fibrous in structure by the development of its connective tissue, and which may eventually be either subperitoneal or submucous," Dr Madden considers the advisability of abdominal operations, the less heroic measures, such as enucleation and "removal by traction," and concludes with a discussion of the medical treatment of these cases

In a gynecological experience of upwards of fifteen years, in the Mater Misericordiæ Hospital and the Dublin Provident Infirmary, Dr Madden has seen few cases of fibromata which indicated either hysterectomy or oophorectomy He is inclined to think that "the enormous proportion of such cases met with in the practice of other surgeons must, in some degree at least, be the self created result of the preconceived views of those who now find these operations so generally necessary, and may be traceable to the analogy instituted between uterine and ovarian tumours," and characterizes the frequency of such operations as "evidence of the spreading *cacoethes operandi* prevalent among abdominal sectionists" Dr Keith's recently recorded 38 cases of hysterectomy, with only three deaths, yield a mortality of eight per cent, while the mortality of an ordinary uterine fibroid, if left alone, does not approximate this figure The ghastly lists of hysterectomy, with a mortality of one death in every two, three or even five, are not justifiable

Schroder's operation of myotomy yields an appalling mortality In his first series of cases, Schroder lost 30 per cent of his patients, in his second series, 22 per cent Dr Madden regards oophorectomy, for checking metrorrhagia, as unjustifiable "until other and safer methods of controlling uterine hæmorrhage have been fully and unsuccessfully employed" The removal of the uterine appendages in cases "of quiescent fibroids, largely occupying the abdominal cavity, in older patients is difficult, hazardous and frequently impossible The scope of the operation, with which the names of Battey, Goodell, and Knowsley Thornton are so prominently identified, is comparatively limited For the operative procedures, thus briefly discussed, Dr Madden proposes to substitute enucleation *per vaginam*, removal by traction — Emmet's operation — and *ecrasement*

In cases of non-encapsuled myomatous growths, medical treatment may be instituted with some hope of utility The first indication is to arrest the hyperæmic condition, which accompanies the development of the neoplasm, and which causes the metrorrhagia Rest during the menstrual period, sulphuric acid with liquor ergotæ, Dover's powder and gallic acid, or hazeline may be tried Dr Madden states that during the past eight years, he has employed ergotine, or liquor ergotæ, hypodermatically to fulfil this indication, and has no hesitation in saying that we may thus control any hæmorrhage, however extensive, caused by uterine fibro myoma The persistent and judicious use of hot water, uterine irrigations constitute an invaluable adjuvant The second indication is "to stimulate the activity of the local absorbents so as, if possible, to induce diminution of the tumour" Iodide of potassium, the bromides of ammonium and potassium, small doses of tincture of iodine, chloride of calcium in the form of the old solution of the hydrochlorate of lime of the Dublin Pharmacopœia, and the use of iodated and bromated mineral waters are the more important therapeutic resources Of all drugs, iodide of potassium, given in as large doses, and for as long a period of time as can be tolerated, is the most useful Kreuznach, Wildegg or Schinznach are suitable spas

Dr Madden's views, as thus briefly detailed, represent fairly well the doctrines of the more conservative class of gynæcologists, and are in sharp opposition to the practice of Schroder, Martin, Carl Braun, Lawson Tait, Dr Bantock, Mr Keith and Knowsley Thornton The lively discussion, elicited by the paper at the regular meeting of the Society on Wednesday, May 27, 1885, will be productive of much good Mr Lawson Tait opened the adjourned debate with a characteristic incisive criticism of Dr Madden's paper He claimed that the actual mortality of uterine myoma was not known, but that it was very much greater than Dr Madden's paper would lead one to suppose "The medical treatment of uterine myomata is a myth" "It is very much like the chapter in the History of Ireland about snakes—there are no snakes in Ireland" The operation of enucleation, as portrayed by Dr Madden, deserves the application of the word "butchery" As to "oophorectomy," Mr Tait says "My mortality in removing the appendages for myoma in the early stage is, in my recent experience, absolutely *nil* If a woman under forty has myoma, the removal of her appendages before she is profoundly anæmic will cure her in ninety cases out of a hundred, and there is not one per cent of risk in the operation"

Dr Bantock entirely concurred with the views of Mr Lawson Tait Dr Madden's account of the pathology of uterine myoma was as peculiar as erroneous "Every fibroid tumor is not primarily interstitial" In support of his views of the value of operative procedure, he exhibited specimens of uterine tumors, six being cases of supra-vaginal hysterectomy, and two removal by abdominal section and enucleation

The Society adjourned without finishing the debate The subsequent developments will be awaited with interest Apart from the valuable character of the discussion as bearing upon a subject of great practical importance, the tone of the criticism, while incisive and severe, is eminently impersonal and fair

CHEMICAL TESTS FOR CANCER AND SARCOMA

In another department of the JOURNAL of this week we give an account of the chemical examination of the blood of two patients affected with malignant tumors, which were operated upon by PROF. EDMUND ANDREWS. The examination was made in order to test the assertions of Ernst Freund, of Vienna, who has been led, by investigation into the chemical nature of malignant tumors, to believe that they can be diagnosticated by the presence of certain substances in the blood. He found that in patients affected with carcinoma the blood contained a considerable quantity of sugar, and that in sarcomatous patients the blood contained no sugar, but peptone, which, on the other hand, is not present in the carcinomatous. The great clinical importance of any such test, if it can be shown to be trustworthy, is evident at a glance. In many cases one of the most puzzling problems that the clinician has to meet is the diagnosis of tumors in internal organs. But by the aid of Freund's test, if it be reliable, a diagnosis would be comparatively easy.

The cases reported by Dr. Andrews are confirmatory so far as they go. Similar tests should be made not only of the blood taken from tumor patients, but of that from others. Freund's researches were extensive, but require corroboration by most careful investigation. Peptone has been found in the urine of patients with carcinoma of the stomach by Maixner. In order to find its way into the urine, it must have existed in the blood. This does not agree with the observations of Freund, who declares that it is absent in cases of carcinoma.

It is commonly asserted that peptone is present in the urine (and therefore in the blood) in those in whom pus is forming and being absorbed. May not at times the breaking down and suppuration of a carcinoma thus cause the presence of peptone in the blood? The matter is certainly worthy of careful experimentation. Of course, in making these tests in cases affected with tumors, the coincident occurrence of diabetes mellitus on the one hand, and of leucæmia and of collections of pus on the other, must be eliminated.

In making the tests for peptone, Freund used those commonly employed in urinalysis. The method he employed in order to detect sugar in the blood was as follows: He took about four cubic centimetres (one drachm), which he diluted with water, and after some time decanted, then added, in order to precipitate the albuminates, a few drops of a solution of chloride of iron and acetate of soda. The liquid was warmed, exactly neutralized by a solution of caustic potash, and finally filtered. With Fehling's solution it then gave the characteristic reaction of sugar. In some cases it was found that glycerine was present in the blood, but not sugar. This fact is shown when no sugar is found in a suspected specimen, by adding dilute hydrochloric acid, warming the mixture for a little while, again neutralizing it, and using Fehling's test, the glycerine, by this process, having been converted into sugar.

Perhaps a simpler method is that which Pavy has recommended for the detection of sugar in the blood of diabetics. It has proved convenient and trustworthy in the hands of Professor Long, of the Chicago Medical College, who made the tests for Dr. Andrews. Pavy's method consists in the precipitation of albuminates by the addition of sodic sulphates in crystals and concentrated solution to the blood. The mixture is boiled and filtered. The liquid is again boiled with excess of Fehling's solution, when the characteristic reaction will occur if sugar is present.

PROGRESS OF PUBLIC SENTIMENT.

Evidences are not wanting that the principal performers in the grand comic play of "Much Ado about Nothing," which was commenced so brilliantly on the 29th of June by 28 prominent members of the profession in Philadelphia, are becoming weary of their work. Some who were induced to join in the play from the first impulse have already withdrawn, and others are evidently preparing to follow.

Dr. John H. Packard, of Philadelphia, who was appointed Secretary-General of the Congress by the Committee of Arrangements at the meeting in Chicago, and whose name was published as one of the 28 who declined to accept any place in the revised organization, has recently withdrawn his declination and accepted the position. As an offset to the other 27 who started the scheme of obstruction and factious opposition in that city, we have the names of 70 prominent members of the profession in the same city who have freely endorsed the action of the American Medical Association, and pledged their support to the organization of the International Medical Congress of 1887. Among them are the names of teachers and authors as eminent and as well known both in this country and in Europe, as any of those who so hastily declined. To the same endorsement and pledge are appended the names of several hundred prominent and well known members of the profession in other parts of the State of Pennsylvania.

For further evidence of public sentiment in the same direction, the reader is referred to the resolutions in the present number of the JOURNAL passed by a joint meeting of the North-Eastern and North

Western Ohio Medical Societies, which embrace the profession in about forty counties of that State

The idea that the Committee of Arrangements will not be able to complete the work of preliminary organization at its coming meeting on September 3d, or that the vacancies in the several Sections cannot be filled with men of the highest standing and ability, is simply absurd And if the changes are made in the rules that were indicated in the JOURNAL of August 8, there will not be left the vestige of a foundation on which opposition can rest, except that afforded by personal prejudice alone

DR W K BOWLING, one of the ex-Presidents of the American Medical Association, and one of the most eminent members of the profession in the Mississippi Valley, died quite suddenly at his residence, on Cumberland Mountain, near Nashville, Tenn , on the morning of the 6th of August, 1885 Dr Bowling was one of the pioneers and a leader in all that pertains to the educational, social and practical interests of the medical profession in this great interior valley He has taken his departure at the ripe age of 77 years A suitable biographical sketch will appear in our columns at an early day

SOCIETY PROCEEDINGS

AMERICAN OTOLOGICAL SOCIETY

The Eighteenth Annual Session of the Society was held at the Pequot House, New London, Conn , July 14, 1885, the PRESIDENT, DR C H BURNETT, of Philadelphia, in the Chair

DR SAMUEL SEXTON, of New York, read a paper on

INFLAMMATION OF THE ATTIC OF THE TYMPANUM

The subject was discussed under two headings, acute and chronic inflammation of the attic The latter presents itself in the form of deep sinuses containing polypoid tissue, crusts, pultaceous matter, etc , leading from the inner end of the canal up into the attic into the antrim, and sometimes through the membrane flaccida This is often the result of acute inflammation in early life The atticus tympanicus is that portion of the tympanum lying above a plane extending transversely from the prominence on the inner wall, formed by the external semi circular and facial canals to the auditory plate on the outside Beneath this plane lies the atrium tympanicum Over the attic arches the tecmin, which also covers the antrum, the petro mastoid canal, a varying number of cellules, and the Eustachian tube The attic communicates freely with the antrum by means of the petro mastoid canal of Sappey The mastoid antrum lies behind and to the outer side of the attic in the spongey substance of the mastoid *It* is usually larger than the attic, and, as a rule, extending downward among the cellules of the mastoid process, giving *off frequently* a small passage, communicating with the cellules overlying the external auditory meatus The attic is divided below into two compartments by the incus and malleus, the cord, ligaments, etc These compartments communicate freely with each other, with the atrium, the Eustachian tube, and with the antrum These cavities are lined throughout with mucous membrane

Acute inflammation of the attic may follow catarrh of the head, the exanthemata, and the entrance of fluids propelled along the Eustachian tube The very frequent occurrence of inflammation of the attic from this cause is readily accounted for when we remember that the Eustachian tube at its tympanic orifice opens by a free sweep into the attic as well as into the atrium Inflammation of the attic may be simultaneous with, consecutive to, or independent of, inflammation of the atrium It is the more serious from the fact that swelling of the mucous membrane clogs the outlets and prevents drainage In such cases, the membrana flaccida is red, the vascular turgescence extending above into the external auditory canal and sometimes downward about the short process of the mallet Should the disease progress further, the inflammation may extend beneath the marco tympanicus of the auditory plate, followed by effusion of serum and blood which presses away the membrana flaccida and integument of the canal, producing a bulging sac so great sometimes as to entirely conceal from view the membrana tympani, and may entirely fill the canal and present at the lumer as a purplish tumor

Periostitis of surrounding parts may occur and extend along the surfaces of the canal, mastoid or squamous portions of the temporal bone Inflammation may extend downward to the atrium, but as long as this does not happen and the membrana tympana is unaffected, there may be little deafness, though autophonia may be present Inflammation, as a rule, extends into the antrum and mastoid cellules If the escape of secretions into the antrum or Eustachian tube is prevented, the case is more severe and the extension to the cranial cavity more to be feared Inflammation of the antrum often persists after the tympanum has healed, drainage taking place through the Eustachian tube or by a sinus through the cortex of the mastoid

The subject of treatment resolves itself into a question of drainage, and the employment of such constitutional remedies as aconite and calx sulphurata, which tend to check the inflammation and prevent the formation of pus

Owing to the impossibility of making an accurate differential diagnosis between the pains of pachymeningitis and neuralgic pains of otitis media, we should be cautious about trephining the mastoid where pain is our only indication It is useless to perform this operation after pachy-meningitis has developed Moreover, this question is one which, in any given case, must be left to the judgment of the attending surgeon

DR D B ST JOHN ROOSA, of New York, said that the remedies mentioned, mercury and calcium sulphide, are not in common use in the way recommended by the speaker I have used mercury in dose of one-tenth to one fifth grain, and also sulphide calcium, without any good effect' I should like Dr Sexton to describe a case, indicating the manner in which he would use these remedies

DR SEXTON said that the remedies are given in small doses, but these are frequently repeated In this way the effect is quickly obtained The moment there are symptoms of purulency I use the calcium sulphide, and I think it controls the process I have seen congestion and swelling over the mastoid disappear under the use of the calcium

DR J A ANDREWS, of New York, had had a case in which the inflammation was most intense in upper part of the tympanic cavity, and a perforation was established between mastoid antrum and external auditory canal When I saw the case there was great deal of swelling of the external auditory canal A fluctuating swelling in the superior posterior part of the canal was incised and considerable blood and pus escaped The patient made a good recovery

DR O D POMEROY wished to know if Dr Sexton believed that the administration of mercury in acute inflammation relieves this pain, and if he does what is his theory of its action?

DR SEXTON said that he had never recommended it to relieve pain For the relief of pain he would recommend the use of aconite and pulsatilla, especially as there is no danger of a cumulative action with it Four or five drops of the latter may be added to a wine glassful of water and a sip taken every fifteen or twenty minutes The sulphide of calcium given alone will relieve pain

DR C R AGNEW said that when there is acute otitis media it is desirable to cut it short as soon as possible I would ask Dr Sexton what he would do in a case of otitis media catarrhalis in an infant six months old

DR SEXTON In such a case I should examine the history, ascertain the general condition, ascertain whether it was subject to catarrhal trouble, ascertain the condition of dentition, ascertain whether there had been a previous attack of inflammation of the middle ear If there were accumulation, I should let it out, but in the majority of cases at this age, the membrane has already ruptured when the case is seen If there were suppuration I should give calcium sulphide If there was simply catarrh, I should give mercury

DR CHAS J KIPP, of Newark, was surprised to hear nothing said of inflation of the middle ear, this relieves the pain Where there is protrusion in front of the membrane, incision gives relief to the suffering

DR SAMUEL THEOBALD, of Baltimore, has found the instillation of a warm solution of atropia of great service, a solution of the strength of four grains to the ounce With this cathartics may be combined with great benefit Pyro phosphate of sodium in fifteen grain doses every two hours, keeping it up for four or five days, is also beneficial After perforation of the drum membrane I would recommend the use of boracic acid

DR CLARENCE J BLAKE, of Boston, said that there was one anatomical point which had not been referred to by Dr Sexton, and that was the reduplication of the mucous membrane in the upper portion of the tympanic cavity These serve to separate the upper portion of the tympanic cavity from the lower, and they become an important element in inflammation of this part, and may tend to retain secretions

DR SEXTON said, in conclusion, that he had used mercury and the sulphide of calcium for the last ten years, and he was convinced that they are beneficial in a certain number of cases

DR W W SEELY, of Cincinnati, read a paper on

THE TREATMENT OF CHRONIC OTITIS MEDIA

Of late years more attention has been concentrated on naso-pharyngeal affections as the starting point and continuing cause of this trouble At this point attention was called to the possibility of treatment of ordinary pharyngeal troubles giving rise to ear complications Every one knows the disastrous results following the treatment of nasal catarrh The great difficulty in these cases is to so treat the nose and throat as to benefit the tube and middle ear He alluded to the abandonment of the nasal douche and the posterior nares syringe, and held that all applications to the naso pharynx should be made with care, as all were liable to do harm All of the points thus far were to justify the author's condemnation of the slurring of these cases by specialists in various ways, such as putting the catheter or balloon into the hands of the patient or parents, throwing over the treatment of the throat also to the patients He claimed that this class of cases were almost all amenable to treatment, and only time and patience were necessary to manage them

The speaker thought that the attention of the general profession was becoming too much centred on the Eustachian catheter as the only means of treatment, and especially as the only means of opening the tubes Often catheterization does harm rather than good, and some application of boric acid and vaseline, or what is still better, of the yellow oxide of mercury and vaseline, through the nostrils, will open the tubes when the catheter has little or no effect He said that salves had almost, if not quite, supplanted all other applications for nasal and naso pharyngeal troubles

Dr Seely concluded his remarks with the following

1 That only experience of sufficient length of time (often lasting over months) in each case, can determine whether treatment shall be continuous (daily) or interrupted, *i e*, perhaps daily for a week, followed by an interruption of some weeks or months

2 Only experience in each case can inform us whether treatment is to entirely directed to the middle ear, or entirely to the naso pharynx, or combined against both

3 Only experience in each case can inform us whether injections into the cavitas tympani are called

for Under this head it was stated that direct medication either of the middle ear or naso-pharynx, as routine treatment, was unwise, till simple inflation had failed

4 Mechanical dilatation of the tubes is rarely necessary or advisable Only in extremely dry states of the tube is dilatation followed by much success

5 Hearing tests are not reliable, and hence patients with great deafness, great loss of bone conduction, etc , should not be sent away till the test by trial has been gone through with

6 Simple inflation failing, the greatest attention should be given to the naso-pharynx, even though it is in an apparently fair condition

7 Syringing, douching and swabbing the naso pharynx should be abandoned

Dr Charles H Burnett, of Philadelphia, read a paper on

THE RELATIONS BETWEEN CHRONIC CATARRHAL OTITIS MEDIA AND CHRONIC RHINITIS

Dr Burnett had found a constant causal relation between chronic catarrh of the middle ear and chronic rhinitis and rhino pharyngitis The latter is chiefly of the hypertrophic form The atrophic form, which is made to include the fibrous degenerations and the sclerotic forms, as well as the truly atrophic, with shedding of epithelium and exposure of basement membrane, constitutes about 14½ per cent In the first class the appearances of the membrana tympani are very diversified, so much so as to preclude a predication of the state of the middle ear and hearing from them alone In the atrophic class the symptoms presented by the membrana tympani are more uniform, and the surgeon is able to predicate from them more precisely concerning the aural disease Yet, on the whole, the appearances of the drum taken by themselves, can not aid greatly in the diagnosis of chronic aural catarrh The faucial symptoms play a very subordinate part in diagnosis in chronic catarrh of the middle ear, because faucial and throat disease have little or no causal relationship to aural disease

Tinnitus aurium is more marked in the atrophic class than in the hypertrophic, as a rule There is also a greater patency of the Eustachian tube in the atrophic forms of aural disease than in the hypertrophic, though it is found in both forms of naso-aural disease It is most relieved by treatment of the nares and naso-pharynx

The treatment in the first class should be by cleansing and astringent sprays, with applications of preparations of iodine, never stronger than half and half Nitrate of silver is not to be used in hypertrophic rhinitis In the atrophic form, cleansing, the removal of inspissations if they occur, and then the application of stimulant sprays, preferably nitrate of silver, not stronger than four grains to the ounce of water, is the proper treatment

In regard to the use of the galvano cautery in the nares, caution should be exercised, since it may lead to inflammation in the naso pharynx and middle ear

Dr Agnew said that it is impossible to apply salves to the whole of the diseased surface by means of Bowman's probe He has used the nasal syringe for twenty years, and is not prepared to accept the law that it should be abandoned He is more willing to agree with the views of Dr Burnett, but thinks more stress should have been laid on the importance of hygiene, which is the most important element in the treatment

Dr Roosa thought that the only benefit to be obtained in the majority of these cases is from proper hygiene He thinks that we do not need to continue our examinations very long to determine whether or not we may expect to give the patient any relief If he find diminished tone conduction, he thinks it unnecessary to go on and treat that patient

Dr E Williams, of Cincinnati, said that he used the Eustachian catheter in every case where he thought it indicated Often introduce a flexible bougie through the catheter sometimes into the middle ear In some cases of stricture of the tube this is quite useful

Dr Knapp said that he had lately suffered with a catarrhal affection which at times caused him considerable annoyance He had employed a salve of iodoform with vaseline with considerable advantage

Dr Seely said that salves remain longer in contact with the affected part than do solutions, thus giving a more decided effect

AFTERNOON SESSION

Dr Sexton presented

A CONVERSATION TUBE FOR THE AURAL INSTRUCTION OF DEAF MUTES

By means of a thin mouthpiece the patient was able to hear his own voice and compare it with the voice of his teacher

Prof Graham Bell called the attention of the Society to the great number of children who were classed in institutions as deaf mutes, but who, under proper treatment and education, could be made simply hard hearing members of society

Dr Charles J Kipp then reported

A CASE OF FATAL EAR DISEASE, BEGINNING AS A CIRCUMSCRIBED INFLAMMATION OF THE EXTERNAL AUDITORY CANAL

The patient, a married woman, aged 28 years, was first seen nine months before her death Since the previous confinement, which occurred four months before coming under observation, she had suffered occasionally with severe pain in and about the left ear There was swelling and redness of the posterior upper wall of the external canal There was no perforation and no otorrhœa Under the use of leeches, instillations of morphia and inflation of the middle ear, there was decided improvement in the course of a month, when she passed from under observation Eight or nine months later, the pain again appeared, shortly after a confinement This was due to furuncles and rapidly disappeared There was no affection of the middle ear Paracentesis was performed, but no escape of fluid took place The patient recovered from the ear trouble, but subsequently died

The autopsy was made by a physician in Maine.

At the autopsy there was found evidence of intense inflammation over the entire extent of the arachnoid and pia-mater There was a collection of pus immediately over the posterior surface of the petrous portion of the temporal bone Pus was also found on the pons varolii A small abscess was found in the anterior part of the left lobe of the cerebellum near its junction with the pons The mastoid cells were filled with pus There was only a thin exudation in the middle ear

DR C H BURNETT read a paper on

THE LOCAL USE OF COCAINE AND BRUCINE IN DISEASES OF THE EAR

Had used both the sulphate and hydrochlorate of cocaine to produce anæsthesia in painful affections of the ear Neither were efficient when the pain was due to inflammation in the dense tissues of the external auditory canal, as in furuncule of this part, nor when acute inflammation occurred in chronically thickened periosteal and mucous tissues in the tympanic cavity A four per cent solution of the hydrochlorate of cocaine, however, is efficient to induce local anæsthesia in cases of not excessive congestion of the skin of the fundus of the auditory canal and in the membrana flaccida of the drum membrane, as is observed in acute coryza, and attended with pain of a not continuous or intense variety But solutions of cocaine are not competent to produce local anæsthesia in the external auditory canal, profound enough to permit painless incision into it Local anæsthesia in the membrana tympani preparatory to paracentesis is not required, as the operation is not painful enough to demand local anæsthesia A solution of brucine, the alkaloid or the nitrate, is successful in relieving pain of ear disease A 5 per cent solution may be employed

DR E E HOLT, of PORTLAND, Maine, read a paper entitled

DOES COCAINE HYDROCHLORATE, WHILE RELIEVING THE PAIN IN ACUTE OTITIS MEDIA, PROLONG THE CONGESTION?

This question had occurred to him several times where he had used the remedy for the relief of pain in the middle ear He was satisfied that while cocaine relieves the pain and for the time holds the inflammation in check, yet after the effect of the remedy passes off, the inflammation goes on unaffected

DR THEOBALD had found that in the nasal passages the drug exerted a similar effect, that although it at first relieved congestion, yet the congestion returned and was even greater

DR J O GREEN had come to the conclusion expressed by Dr Holt

DR POMEROY recommended that in using the cocaine, the solution should be applied by means of a dossil of cotton, which is to be allowed to remain in position for ten or fifteen minutes

DR D B ST JOHN ROOSA read a paper on

PRESBYKOUSIS

The reader applied this term to the failure of hearing which is incident to old age, and which is not dependent upon inflammatory affections It comes on after the age of forty or fifty years Such persons hear badly in a noisy room They hear the watch badly, but in a quiet room they can hear quite well This is characteristic of this affection In inflammatory troubles with the ear, the person often can hear pretty well in a noise, while in a quiet room he hears badly These three symptoms go together diminished tone conduction, hearing worse in a noise, and the disproportion between the ability to hear the voice and the watch The conditions on which this presbykousis is dependent have not yet been determined, for as yet there have been no opportunities for post mortem examinations

DR E E HOLT had examined a large number of persons with ear disease who claimed that they could hear better in a noise than in quiet, but was unable to find that this was a correct observation In noisy places, the voice is raised, and this might account for it

DR ROOSA, in conclusion, said that in regard to the hearing better in a noise, he was convinced that patients with tympanic disease could hear better under such circumstances, and cited the example of a lady who heard with difficulty under ordinary circumstances, but who in a boiler shop, heard the ordinary voice distinctly, while her husband, with normal hearing, heard only when words were shouted

DR SEXTON exhibited a *Glass Ear Syringe and an Ear Forceps with Several Attachments*

DR E DYER, of Newport, R I, reported a case of *Fistula of the Helix in a Girl of Fourteen* which he *greatly benefited by the application of the galvano-cautery*

The following were elected

OFFICERS FOR THE ENSUING YEAR

President, Dr J S Prout

Vice-President, Dr S S Sexton

Secretary and Treasurer, J J B Vermyne, New Bedford, Mass

Publication Committee, Drs Vermyne, Blake and J O Green

Committee on Membership, Drs Carmalt, Kipp, and Theobald

Dr F L Capron, of Providence, R I, was elected to membership

The meeting then adjourned

CHICAGO GYNECOLOGICAL SOCIETY

Meeting, Friday Evening, June 19th, 1885

THE PRESIDENT, H P MERRIMAN, M D, IN THE CHAIR

PROFESSOR J H ETHERIDGE read a

REPORT OF A CASE OF A FŒTUS ENCLOSED IN ITS SISTER'S PLACENTA—(FŒTUS COMPRESSUS, FŒTUS PAPYRACEUS,)

with exhibition of the specimen

On 26th September, 1882, Mrs F J B, 22 years old, of a nervous sanguine temperament, healthy, was delivered of a mature female child, after a normal labor of four hours duration During the delivery of the placenta, some abnormity was detectable, which proved to be a *fœtus papyraceus*.

The outer surface of the placenta at once arrests attention. A deep furrow separates the two placentæ, which are united, on their amniotic surface, by a series of compact white bands, discoverable only by pressing through the furrow. The large placenta constitutes about two thirds of the entire mass. The smaller placenta is thin, flat and compact, being about one third as thick as the larger one. The placenta of the living child is normal throughout its extent. Cotyledons are well marked, the tufts and villi presenting normal microscopical characters. The placenta of the *fœtus compressus*, in about nine-tenths of its extent, is whitish yellow, and very firm. The whole thickness of this portion of the placenta, excepting its amniotic surface, presents one unbroken mass of fatty degeneration. The remaining one tenth of the placenta presents a carneous appearance, evidently a transition stage between normal placenta and complete fatty destruction. Its cotyledons are enmassed and its tufts and villi solidified and the whole is interspersed with initial fatty depositions.

As regards the fœtal surface of placenta, the two segments were wholly different at time of birth. The placenta of the living child presented a normal appearance. The placenta of the *fœtus papyraceus* presented the appearance of a closed bladder, which, upon examination, was found to be an unruptured amnion, containing amniotic fluid and a fœtus. The development of the *fœtus compressus* corresponded to the third month. The cord of the *fœtus papyraceus* was ten cm. longer than that of its fellow, and much thinner. The cord was inserted into the margin of the placenta, near the fully developed organ.

Among the causes, producing the death of the fœtus, the following may be mentioned:

1. Faulty insertion of the cord, at the margin of the placenta, adjoining its fellow. (Kieselhaused.)
2. Faulty structure of the cord, thin, twisted, or deficient in the jelly of Wharton. (C. Braun.)
3. Disease of the placenta.
4. Traumatism.
5. The implanting of the umbilical vessels too closely together, and arterial anastomosis.

Fœtus papyraceus is of seldom occurrence. A search through the library of the Surgeon General's office at Washington resulted in finding only five references to reports of similar cases.

DR. PHILIP ADOLPHUS thought that such cases were of more frequent occurrence than the remarks of the author of the paper would lead one to believe. In twin pregnancy, the death of one fœtus before parturition was not infrequent.

PROFESSOR W. W. JAGGARD agreed with Dr. Adolphus that while such cases were rare, a more extended research into the literature of the subject would have revealed a much larger number of cases. While it was true that American and English text-books usually merely mentioned the fact of occurrence, German, French and Italian treatises devote a chapter to the subject. The last edition of Schroder, contained an excellent *resume* of the literature. The case, reported and exhibited by Professor Etheridge, resembled in many points the case in the Pathological Museum of the Jena Lying-in Hospital, fully described by B. S. Schultze. This specimen showed the placenta of a mature fœtus, and adjoining it a second egg, corresponding to the sixth week of pregnancy, with its own decidua and unruptured amnion.

Professor Etheridge's case was chiefly interesting, as bearing upon a subject of theoretical importance, *i. e.*, superfecundation, and superfœtation. On *á priori* grounds, it was possible that superfœtation could occur as late as the twelfth week of pregnancy,—when *decidua vera* and *reflexa* became united. Up to this time, it was possible that egg and spermatozoid might come in contact. Superfœtation was also possible in cases of double uteri. Up to the present time, however, no case has been recorded which does not admit of a simpler explanation. There exists a great weight of evidence in favor of superfecundation. Mares give birth simultaneously to horse and mule foals; bitches, running the period of rut with different breeds of dogs, throw young of different, so called bastard forms, corresponding to the breeds of the male progenitors; the same is true of cats. A woman may give birth to twins, one of which is white, one black. The latter fact, however, does not necessarily demand for its explanation intercourse at or near the same time with a white and a black man, since in crossing races, the offspring may resemble either father or mother, or one child may resemble the male, the other the female progenitor. There could be no reasonable doubt as to the accuracy of Professor Etheridge's diagnosis.

DR. JOHN BARTLETT had seen one case of *fœtus compressus*, in the Chicago Woman's Hospital, about four years ago. One fœtus was mature,, the other corresponded in development to the fifth month of pregnancy. Professor Bartlett referred to the contribution of Smellie and Mauriceau upon the subject.

DR. EDWARD WARREN SAWYER referred to the fact that in ectopic pregnancy no compression of the fœtus was observed. He alluded to a case in which he performed laparotomy three and one-half years ago. The fœtus weighed eight pounds. There could be no question about superfœtation in Professor Etheridge's case. Fœtation by inclusion might be considered as explanatory of many of the monstrosities which are so commonly seen.

PROFESSOR DANIEL T. NELSON though it would be interesting to know how much force was necessary to compress the fœtus as in Professor Etheridge's specimen. He referred to the experiments of Professor Park, of the Massachusetts Agricultural College, in the determination of the expansile force of growing squashes and pumpkins.

THE PRESIDENT wished to know whether the death of the fœtus occurred before compression, or whether it resulted from that factor. The marginal insertion of the cord doubtless was an important etiological agent. When the uterus was in the pelvic cavity, compression was greater. He referred to the fact that in twin pregnancies it was unusual to find both children equally developed, and frequently the birth of one preceded that of the other by minutes, hours, and even days

DR HENRY T BYFORD read a report of a

CASE OF LEIO-MYOMA OF THE VAGINA AND UTERUS

The patient was a widow, about thirty-five years old Was married ten years without becoming pregnant She had no decided symptom of disease except an occasional backache, some leucorrhœa She was treated for uterine inflammation three years before, and no tumor was discovered Since that time she has menstruated every two weeks Catamenia usually lasted five days, and were normal as to quantity Twelve years ago she noticed a tumor about the size of a hickory nut, just within the vagina This swelling had since that time grown steadily, until its protrusion from the vagina, about 12th of Jan , 1885, caused great inconvenience Even at that time the pain was promptly relieved by an opiate administered by Dr Doering Two or three days subsequently the tumor became black, swollen, and emitted a gangrenous odor Slight septicæmia followed cauterization with nitric and carbolic acids The tumor was attached to the anterior walls of the vagina

The tumor was subsequently crushed off, and the patient recovered Examination revealed a protuberance, about the size of a goose egg, upon the right anterior surface of the uterus, which was apparently a leio myom

The following points of interest are to be noted in connection with the case 1 The occurrence of both tumors in the same person, 2 The slow growth of the vaginal as compared with the uterine tumor, 3 Sloughing of the capsule immediately after protrusion from the vagina, without impairment of the vitality of the tumor proper, 4 Entire absence of sensitiveness to strong acids, 5 The production of a pedicle by ligaturing the proximal end with a fine wire , 6 Sterility antedating the discovery of the uterine tumor, 7 The influence of ergot upon the uterine tumor

DR EDWARD WARREN SAWYER thought that the locality of the vaginal tumor was interesting but not unusual

PROFESSOR DANIEL T NELSON inquired whether or not fibroid tumors occurred by preference in the anterior vaginal wall He thought, as regards the operation, an elliptical incision around the base, and enucleation of the tumor, would have fulfilled the indications equally well

---

FOREIGN CORRESPONDENCE

LETTER FROM BERLIN

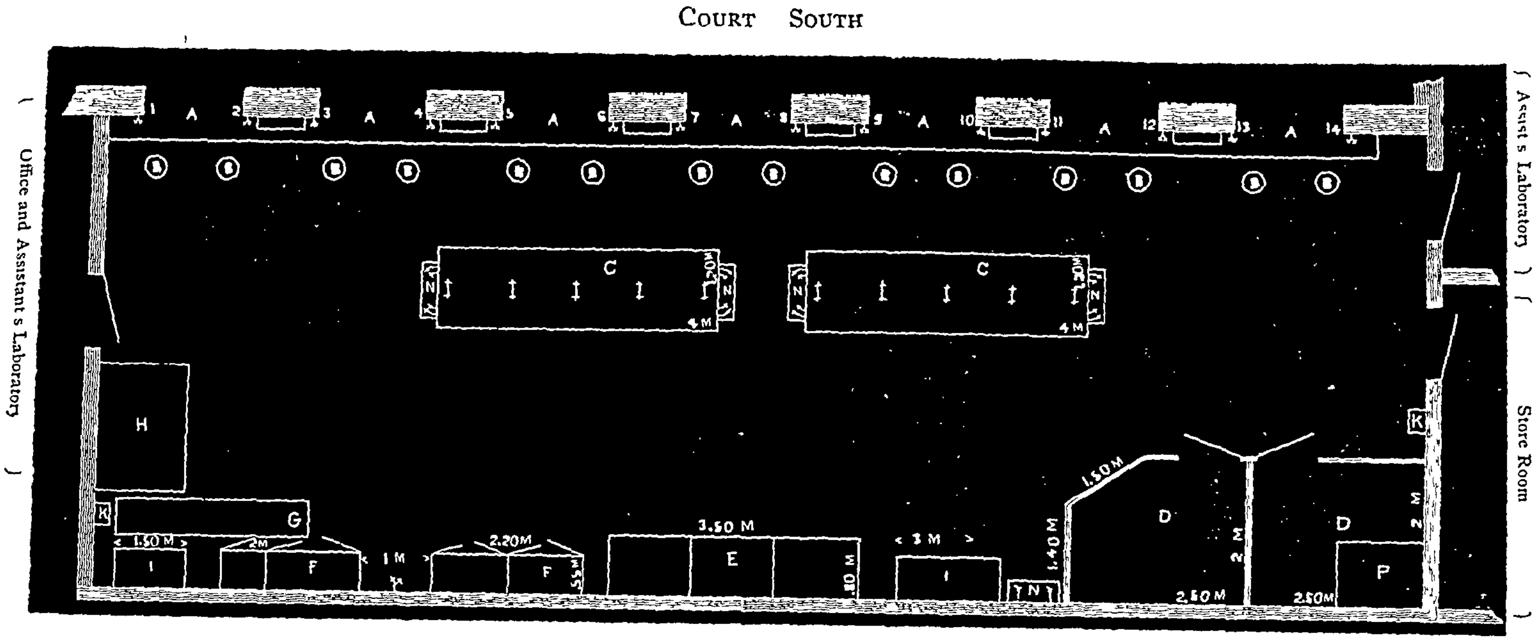
(FROM OUR SPECIAL CORRESPONDENT)

KOCH S BACTERIA LABORATORY

Perhaps some of the readers of the JOURNAL may be interested in a brief description of the new laboratory that has been provided for the great master of bacteria to give instruction in his peculiar branch Prof Robert Koch has just received his appointment as Professor of Hygiene in the Royal University, and in this connection he has to day opened a course in bacteriology for 10 students

The general laboratory is on the third floor of a large old house which has been remodeled, and this, with its appendages, are, as yet, the only rooms finished The laboratory is a large room 18 75 metres long, 6 75 m wide, and 3 50 m high It has seven large windows facing the south and looking out into a central court, the entire building being in the form of a hollow square The entrance to the room is at its east end and in our description we will go around it from left to right Commencing in the southeast corner and extending the whole length of the south side, are the microscope desks (A A A in the plan) formed by a continuous shelf, the top of which is 0 75 metres above the floor, and beneath it is a single row of small drawers which are very convenient for instruments and small apparatus in common use Each window is arranged to accommodate two persons Between the windows are four rows of narrow shelves for regular bottles, specimens, etc , and above these is a broad shelf, on each end of which is a bottle of distilled water, which is brought within easy reach of the student by means of rubber and glass tubing and a clamp to shut it off In addition to a gas-burner high up between each window, every desk has, an inch or so above the table, connections for the attachment of two Bunsen burners, thus giving an ample supply Piano stools (B B B) are provided for use at the microscope desks, which being adjustable, are particularly convenient for persons of different heights

At the west end of the room are two doors leading to the assistant's laboratory and to the storeroom In the northwest corner there is partitioned off a large closet 5 m long and 2 m wide, which is divided in halves (D D) for culture-rooms, each having several rows of shelves around its sides In the one in the corner is a refrigerator to preserve the culture gelatine when not in use, and also other materials for which a low temperature is desirable On the shelves in this closet are kept the jars and test tubes containing cultures on gelatine, the refrigerator keeping the general temperature of the room about right to favor growth of the bacteria, while the temperature of the laboratory itself, during these summer days, is high enough to melt the gelatine and thus spoil the cultures The second culture closet contains the culture-oven, in which are kept those cultures which require a constant and higher temperature, as that of the body Close to the culture closets is a sink (N) with two faucets and then there is one of the large German stoves (I) built of tiles At a distance of three metres from the culture closet is the "hood" (E), 3 50 metres long and 0 80 metres wide, extending to the top of the room This is provided with sliding glass doors which move up and down It is abundantly supplied with gas and has good ventilation Here is kept the steam sterilizer and also the animals, mice and guinea-pigs, which have been vaccinated, and here also can be performed any operation or experiment which it is desirable to have isolated on account of disagreeable odors Near the hood is a large closet (F) 2 20



BACTERIA LABORATORY Length, 18 75 metres, width, 6 75 metres, height, 3 50 metres

A A A —Microscope Desks at Windows
B B B —Piano Stools
C C —Work Desks with Drawers and Closets beneath
D D —Culture Closets with Shelves
E —*Hood with 3 Apartments* and Sliding Doors
F F —Closets with Shelves

G —Demonstration Tables
H —Platform before Blackboard
I —Stoves
K K —Sterilizing Apparatus
N N N —Sink bowls and Faucets
P —Refrigerator

metres long, and one metre distant from this is another (F) 2 metres long These are used for the general stock of chemicals reagents, etc Between these two closets there is on a table a magnificent and delicate pair of scales, which are used only when the greatest accuracy is required, others being supplied for ordinary work

In the northeast corner of the room is another stove (I), in front of which are the demonstration tables (G) used for exhibiting cultures, etc These are beside the platform (H) which is in front of the blackboard used for illustration Fastened to the wall on each of the east and west ends of the room, are two large double walled sterilizers used for sterilizing test tubes, glass plates, etc In the centre of the room are two large work desks, which have a surface measurement of 4 m x 1 20 m and are 0 90 m high, being arranged for standing work Beneath these are a single row of drawers and cupboards which have locks and keys, and are where the students keep their microscopes and larger apparatus On the top of each desk are five double gas connections, and at each end is a large iron sink bowl into which empty four faucets, which are arranged in pairs 30 or 40 centimetres respectively above the top of the desk The floor and desks are made of hard wood As the supply of gas and of water is ample and convenient, and as everything is so conveniently arranged, it forms a very suitable bacteriological laboratory BACTERIA

Berlin, July 25, 1885

DOMESTIC CORRESPONDENCE

THE INTERNATIONAL CONGRESS

Sir —The following preamble and resolutions were passed at the joint session of the North Eastern and the North-Western Ohio Medical Association, and by a separate resolution directed the same to be sent to the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION for publication

"*Whereas*, An unseemingly controversy appears in the medical journals of the country respecting the work of the Committee on Organization of the approaching International Medical Congress, and,

"*Whereas*, There has appeared a remarkable readiness on the part of one or two prominent medical journals to present, if not magnify, the difference of opinion which may exist in the medical profession generally, to the disparagement of the work being done by the Committee, instead of aiding in making the work a success, predicting failure and disgrace, and pronouncing the enterprise 'moribund'" Therefore be it

"*Resolved*, That we, the members of the North Eastern Ohio Medical Association and the North-Western Ohio Medical Association, in joint session assembled, regard with solicitude and disapproval, any word or act on the part of any member of the regular profession of the United States which shall tend to create, perpetuate or encourage discord in the work of completing the organization of the International Medical Congress"

"*Resolved*, That no question of local, State or personal consideration or differences have properly any legitimate right to be brought into the question of organization to increase the labors or embarrass the work of the Committee, but that it is the duty of every honorable member of the regular profession to aid in promoting harmony and efficiency in the work of preparing for the International Medical Congress, in the success of which every member of the medical profession in the United States is interested"

"*Resolved*, That as the interest of the whole is paramount to that of the individual, it becomes every one to yield his personal desires or supposed rights to the advancement of harmony and the ultimate complete success of the approaching International Medical Congress And that the refusal to perform duties regularly assigned by the Committee, presenting no adequate reason for such refusal, betrays a spirit unworthy of so great an occasion"

W C CHAPMAN, of Toledo, O, *President*

R E JONES, of Gomer, O, *Secretary*

THE MEDICAL NEWS' VERSION

THE ALLEGHENY COUNTY MEDICAL SOCIETY AND THE INTERNATIONAL CONGRESS

EDITOR JOURNAL AMERICAN MEDICAL ASSOCIATION

Dear Sir —The enclosed note I send to day to the Philadelphia *Medical News* In simple justice I hope it will be published

Editor of News Dear Sir —I notice in my *News* received to day that you make a point of the recent action of the Allegheny Co Medical Society concerning the proposed International Medical Congress Our Society has over one hundred and ten members At the meeting where the resolutions you published were passed not over twenty members were present Of these but few were familiar with the facts in the case The resolutions were scarcely discussed except by the mover As they were passed *viva voce* no record of the vote was kept, but I am assured that not over twelve, or *one-ninth* of the entire Society voted for them To whatever weight that vote may have you are welcome, but simple justice to the profession in this county requires these facts to be stated, as many of those who were absent from the meeting are not in favor of reinstating a Committee two-thirds of whom appointed themselves to one or more of the most desirable positions in the Congress, and who gave other positions of honor to the bitter enemies of the very Association from which they received their authority

Respectfully yours,

THOS D DAVIS,

Cor Sec'y Allegheny Co, Pa, Med Society

Pittsburgh, Pa, Aug 10, 1885

CONSULTATION WITH HOMŒOPATHS

The following correspondence explains itself —ED

TO THE EDITOR OF THE JOURNAL

Dear Sir —I enclose herewith a letter addressed by me to the editor of the *Record* a few days since

You will see he made a perfectly gratuitous attack upon my professional integrity, and when requested, through a perfectly polite note, to publish my denial of it, he attempts to add insult to injury by declining to do so, and pronouncing my note discourteous I beg that you will do me the favor to give my note to Dr Shrady a place in your JOURNAL, in order that I may be set right before my professional brethren

Very truly and respectfully,
A Y P GARNETT
Washington, D C, Aug 2d, 1885

To the Editor of the Medical Record

Dear Sir —Upon my return to the city to day my attention has been called to the following paragraph, which appears in your issue of the 18th inst

> "CONSULTING WITH HOMŒOPATHS —The wife of Mr Bayard, Secretary of State, has been lying ill at Willmington, Del, under the care of a homœopathic physician, Dr Argendank The daily papers assert that regular physicians, among them Dr Gardner (Garnett?), of Washington, have been in consultation with the physician in attendance"

As you are the zealous and aggressive organ of the New Code sect who advocate and practice such professional association, I am constrained to believe that the introduction of my name in this connection was intended as a high compliment to me It is therefore with feelings of the deepest chagrin and regret that I find myself compelled, by a regard for the truth, to confess to you that I have never either seen or spoken with the lady referred to, and consequently could not have enjoyed the privilege of participating in a consultation so unequivocally commended by you

Very respectfully yours,
A Y P GARNETT, M D
Washington, D C, July 24, 1885

My Dear Sir

As your suggested charge that I had been in consultation with a homœopathic physician has been sent broadcast to the professional world, I trust you will recognize the justice and propriety of giving equal publicity, through the columns of your journal, to the enclosed reply

Very truly and respectfully,
A Y P GARNETT
To DR SHRADY
Washington, D C, July 25th, 1885

HYDATID TUMORS OF THE BRAIN

Dear Sir —Permit me to make a brief explanation regarding the kind criticism offered by Prof Osler, of Philadelphia, in Vol V, No 3, of the JOURNAL

In the broad sense of the term, a hydatid tumor means simply a cyst or bag filled with a watery liquid As we have hydatid tumors resulting both from the echinococcus and cysticercus, I defined in the very beginning of my paper the meaning I attached to the term as used in this paper, which was "the intra-cranial occurrence of either the echinococcus or cysticercus cellulosæ in man" In no way could my paper be construed as confounding these two parasites, for I distinctly described each briefly, under divisions A and B (see page 1, Vol V, No 1, of the JOURNAL), and recognized them as two separate species of the same genus, but producing similar pathological changes when they invade the human economy

It seems to me, from a clinical standpoint, it matters but little which one is producing the invasion when the results to the patient are the same In fact, I can readily imagine it to be a *very* difficult task to diagnosticate between these two parasites, on the living subject, especially when they occur in the brain

As to Dr Osler's second criticism, unfortunately from unavoidable circumstances three of the cases were not examined microscopically, even after sending one to a pathologist in Cleveland, who unfortunately lost it before an examination. The fourth, however, was examined microscopically, and a number of isolated hooklets were found (some of which had partially undergone calcareous degeneration), which enabled me to be positive in this one case, at least, and very confident in all the others I reported

Very truly, R HARVEY REED, M D
Mansfield, O, July 25 1885

NECROLOGY

WM GASTON BULLOCH, M D

This well-known physician died at his residence in Savannah, Ga, on June 23, in the seventy-first year of his age He was the son of John Irvine Bulloch, and great-grandson of Governor Archibald Bulloch, of Revolutionary fame He graduated from Yale College in 1835, and having selected medicine as his profession, at once entered upon his studies in the medical department of the University of Pennsylvania, from which he graduated in 1838 The thesis presented to the faculty on this occasion was on "Pneumonia"

After obtaining his degree he went to Europe to further prosecute his professional studies, the greater part of his time being spent in the hospitals of Paris He then returned to the United States, and settled in practice in his native city Being well prepared, and zealous in the performance of his professional duties, he soon acquired a large and growing practice, and throughout his life he retained the respect and confidence of the community and his professional brethren Being public-spirited, he associated with all the literary and benevolent societies of his city He was a member and earnest promoter of various medical organizations He was President of the Medical Association of Savannah, and also, at one time, of the Georgia State Medical Association He became a member of the American Medical Association in 1851

Dr Bulloch was one of the founders of the Savannah Medical College He was a surgeon in the Confederate army during the late civil war, was alderman of Savannah for two years, and was physician to the city gaol from 1877 to the time of his death His medical writings were chiefly confined to articles contributed to the *American Journal of the Medical Sciences*, and to the *Savannah Journal of Medicine* His remains were placed in Laurel Grove Cemetery, where the peculiar services of Masonry were performed in the presence of a very large concourse of his friends, and various associations of which he was a member

ASSOCIATION ITEMS

MEMBERSHIP BY APPLICATION

At the meeting of the American Medical Association held at Washington, in May, 1884, an amendment to Regulation II was adopted, which provides that membership in the Association shall be obtainable by any member of a State or County Medical Society recognized by the Association, upon application endorsed by the President and Secretary of said Society, and shall be retained so long as he shall remain in good standing in his local Society, and shall pay his annual dues to the Association Hitherto attendance as a delegate at an annual meeting has been necessary in order to obtain such membership

Application for membership, accompanied with Five Dollars, for annual dues, and the Certificate of Membership in the local Society, should be sent directly to the undersigned, on receipt of which the weekly Journal of the Association will be forwarded for one year

Richard J Dunglison, M D, *Treasurer*
Lock Box 1274, Philadelphia, Pa

MISCELLANEOUS

The Cholera in Europe —Thirty-five hundred and ten cases of cholera, and 1,342 deaths from the disease were reported throughout Spain on August 10

On August 10 there were fifteen cases entered at the Pharo Hospital in Marseilles, some of them being hopeless In that city "Bureaus of Aid" for night relief have been opened on account of the difficulty of obtaining medical assistance On August 11, there were thirty-nine deaths from cholera At a meeting of the municipal authorities on August 11 100,000 francs were appropriated for sanitary purposes The Chamber of Commerce has protested to the Government against the system of quarantine, and claims sanitary measures will be taken against vessels coming from Genoa, Naples, and other ports where deaths from cholera are suspected

It is quite certain that cholera has appeared in Toulon, two deaths having occured on August 10, and several other cases, without fatal results as yet, having occurred in the vicinity of that city

It has been reported that a fatal case of cholera has occurred in Bristol, England, but the report has not been authoritatively confirmed

Precautions Against Cholera in America — The Canadian Government have not sufficient proof yet of cholera being the cause of the death of the sailor at Bristol or of there being any case of cholera in England Should there be, however, the Government think the proclamations of June 17, 1885, and June 27 last will fully meet the case These proclamations provide for the quarantine of all vessels coming from infected ports The first provides that Grosse Isle, Lawler's and Partridge Isles, with such other places as may from time to time be thought fit, shall be used as places of quarantine, and that boats suspected of being capable of introducing cholera into Canada shall make quarantine until discharged by the authorities The second provides that all vessels coming from or having called at, on their voyage, any port of Spain or the Mediterranean Sea, or the port of London, in England, shall be subject to the quarantine regulations in force for the ports on the east coast of the Dominion Bristol, not being Spain, the Mediterranean Sea, or the port of London, would require either a straining of the terms of the proclamation or a separate proclamation

The quarantine officers at Baltimore and at the Delaware Breakwater have been notified to look out for three vessels which have sailed from Genoa for those places without proper bills of health

Dr John Ten Brook of Paris Edgar County, Illinois, one of the oldest practitioners in the State, died at his residence, on the 8th of August, 1885, aged 77 years Though leading a quiet unobtrusive life, he performed well all the duties of an active and intelligent practitioner of medicine, and of a good citizen, and has gone to his rest respected and honored by all who knew him

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM AUGUST 1 1885 TO AUGUST 7 1885

Surgeon J M Brown, Asst Surgeon Clarence Ewen, A W Taylor, ordered to rejoin their proper stations in Dept Platte Asst Surgeons G L Edie and C S Black ordered to rejoin their proper stations in Dept Texas (G O No 7, Division Mo, Aug 1, 1885)

Capt L S Tesson, Asst Surgeon, ordered from Fort Stockton, Texas, to Fort Davis, Texas Capt W F Carter, Asst Surgeon, ordered for duty as Post Surgeon at Fort Stockton, Texas (S O 90, Dept Texas, July 27, 1885)

Capt J L Powell, Asst Surgeon, assigned to temporary duty at Fort Leavenworth, Kans (S O 110, Dept Mo, July 30, 1885)

First Lieut Wm D Dietz, Asst Surgeon, ordered from Fort Selden to Fort Stanton, N M (S O 111, Dept Mo, July 31, 1885,)

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE WEEK ENDED AUGUST 1 1885

Fessenden, C S D, Surgeon Leave extended ten days on account of sickness July 27, 1885

Godfrey, John, Surgeon Granted leave of absence for thirty days July 29, 1885

Irwin, Fairfax, Passed Assistant Surgeon To proceed to Richmond, Va, and Wilmington, N B, as inspector July 28, 1885

Ames, R P M, Passed Assistant Surgeon Granted leave of absence for thirty days July 27, 1885

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N S DAVIS

PUBLISHED WEEKLY

Vol V CHICAGO, AUGUST 22, 1885 No 8

ORIGINAL ARTICLES

AN UNUSUAL CASE OF SUB-SEROUS FIBROUS TUMOR[1]

BY J F Y PAINE, M D

PROFESSOR OF MATERIA MEDICA, THERAPEUTICS HYGIENE AND CLINICAL MEDICINE MEDICAL DEPARTMENT UNIVERSITY OF LOUISIANA MEMBER OF THE TEXAS STATE MEDICAL SOCIETY ETC

It is not my intention, in the subjoined report, to disclose either a new therapeutic agent or an improved method of employing an old one, but simply to add a note to a procedure instituted by Hilderbrandt, and which already enjoys the sanction of our science Without attempting a *resume* of the literature of the subject, it is proper that I should state that the method has not met with universal favor, and it is partly for this reason that I venture to read the notes of a case of sub serous fibrous tumors lately under my treatment

Miss V E G, æt 43 years, native of Louisana, of good social position, school teacher Family history exceptionally clear Personal health uninterrupted until about two years preceding my first visit In the early part of 1882 the patient began to experience unaccustomed sensations, which soon developed into positive disorders, such as abdominal and pelvic pains, irritability of bladder and rectum, menorrhagia, leucorrhœa, etc It was not until the early part of 1883 that she discovered anything unusual in the contour of the abdomen The presence of two hard masses, one in the hypogastrium, and the other in the right inguinal region, excited her apprehension, and she consulted a physician From that period until January, 1884, the tumors had grown with such rapidity that the abdominal cavity seemed filled to its utmost capacity Not only were the viscera compressed and displaced, but the walls and integumentary tissues were so distended that she suffered almost constant pain Both her attending and consulting physicians are prominent practitioners in Galveston, and I have no doubt that their management of her case is above criticism A frank prognosis on their part, however, determined her to dismiss them, and employ other counsel It was at this juncture that I was called, and from which period my notes date

My first visit was made on January 27th, 1884, and I was impressed by the ex-sanguined face, anxious expression, rapid breathing, and feeble, unrhythmic pulse of my patient Examination revealed an enormously distended abdomen, with skin so tight that it could not be pinched, and a hard, uneven surface The uterus was decidedly retroverted, somewhat enlarged, and considerably below its normal plane There were unmistakable evidences that pressure was impeding the functions of the bladder, kidneys, intestines, stomach, lungs and heart Dyspnœa and irregular heart-action caused great distress The stomach was so compromised that only small quantities of food could be ingested, and even they were followed by various dyspeptic phenomena, the bowels were evacuated with difficulty, sleep was disturbed, pressure upon the sacral plexus gave rise to sciatica, which at times was agonizing The patient was confined to her room, and a considerable proportion of the time to her bed Exhausting menorrhagia occurred every month Measurements of the circumference of the trunk at the epigastric, umbilical and hypogastric regions yielded 50, 51 and 51½ inches respectively From that date, January 10th, to Feb 10th prox, there was an increase of ¼ inch for the first, ½ inch for the second, and ½ inch for the third region (adhering to the order in which they were first named)

On March 16th, thirty-five days after second and forty nine after first measurements, there was a decrease of 4¼ inches for the epigastric, 4½ for the umbilical and 5 for the hypogastric regions Amelioration of every symptom was marked Patient took more food, with less discomfort, slept better, was comparatively free from pain, menorrhagia was less pronounced, was able to take a moderate amount of outdoor exercise, and, barring occasional hysterical paroxysms, has made uninterrupted progress

April 1st, sixteen days since tape-line was last applied, shows a loss of 4 inches for the first, 4 for the second, and 3 for the third region, and patient much improved in every respect

May 21st, fifty days, reveals a decline of 10 inches for the first, 9 for the second, and 8 for the third region With the exception of a few small abscesses, resulting from hypodermic medication, patient expresses herself as feeling "quite well"

July 11th, fifty-one days, discloses a falling off of 5½ inches for the first, 4½ for the second and 4¾ for the third region Patient feels so well that she enters upon a general round of visiting, returning calls made while she was confined to her room On the 6th of October she resumed her occupation of teacher in the public schools in this city, and has only lost one day, and that on account of sore throat.

---

[1] Read in the Section of Obstetrics and Gynecology at the Thirty sixth Annual Meeting of the American Association

December 23d, ten months and twenty-seven days after my first treatment, measurements displayed a circumference of 24 inches against 50¼ for the epigastric, 30 against 51½ for the umbilical, and 30 instead of 52 for the hypogastric regions, exhibiting a difference of 26¼, 21½ and 22 inches respectively. As far as could be ascertained, every function of her economy was normal, including menstruation. Mensurations taken to day, April 18th, gave a still further slight decrement.

The treatment of this patient can be briefly stated. Ergot hypodermically was the only directly curative agent employed, but it was carried far beyond the limit advised by Hilderbrandt and others. I began with the daily use of the stereotyped dose of three grains of Squibbs' solid extract, diluted with a little glycerine and warm water, and so continued it for ten days, when my patient's increasing distress seemed to justify the administration of a like quantity morning and evening. From the eleventh day I increased the dose one grain each day, until ten grains were given morning and night. Slight signs of ergotism appearing, I did not increase the quantity further, but continued it in that degree until April 1st (fifty four days), when its evening exhibition was omitted. Ten grains daily at a single dose was maintained until May 21st (fifty-one days), when the great shrinkage of the tumors, and disappearance of painful symptoms, led me to extend the interval to every other day. This latter order was pursued until July 11 (fifty one days), from which date to Dec. 23d, the quantity employed was reduced to five grains, and the interval increased to three days. As previously stated, Squibbs' solid extract was the preparation selected, and the quantity used was freshly diluted with warm water at the time of using it. Less irritation was produced by fresh aqueous solutions than by others, however compounded, when allowed to stand a few days. The points of puncture were not restricted to any particular region, but a considerable extent of the surfaces of the trunk, upper and lower extremities were utilized first and last. The needle was variously introduced—obliquely into the subcutaneous areolar tissue, and straight down into the muscular structure—without appreciable difference in result as regards local irritation. Occasional abscesses developed in spite of every precaution.

None of the distressing symptoms of ergotism manifested themselves during the progress of the treatment. No gangrenous tendencies, no spasmodic complications, neither were there troublesome headache or vertigo. Nervous phenomena and nausea were the only symptoms which could be attributed to ergot. Hysterical paroxysms, however, had annoyed her from the beginning of her illness, and were no doubt in large measure due to exhaustion and reflex disturbance. The most notable effect of the ergot was slowing of the cardiac rhythm. The supplementary treatment consisted of blood, nerve and digestive tonics, rigid attention to all the functions, carefully selected diet, well regulated personal and house hygiene, and anodynes and hypnotics when indicated. I improvised an abdominal supporter, which the patient wore when she sat up or walked, and it afforded great relief to the pelvic viscera.

The patient visited the Exposition at New Orleans in the former part of January, during a very cold spell, and the combined influence of fatigue and chilliness gave a fresh impetus to the tumors, but within a month, under the same line of treatment already detailed, they had degenerated into insignificant, hardish masses. Five grains every four days is still employed. It cannot be urged that the rapid retrogression of these tumors is anywise the result of senile involution connected with the climacteric, for the patient had never suffered the slightest aberration of the menstrual function until menorrhagia was excited by these abnormal growths.

Galveston, Texas, April 20th, 1885.

AUTOPLASTY, THE CONSERVATIVE SPIRIT OF MODERN SURGERY[1]

BY F. FORMENTO, M.D.,

OF NEW ORLEANS, LA.

The progress made in the science of medicine and surgery since the commencement of the present century has been wonderful indeed. The spirit of positivism and experimentation which characterizes our epoch, the generalization of clinical and practical studies, the great modern wars which have afforded such vast fields of observation, the most thorough knowledge of anatomy and physiology, and the immense improvement made in the physical and chemical sciences, satisfactorily explain the true and permanent advancement of medicine and surgery. Every day chemistry furnishes us with precise methods and new discoveries. The most wonderful and valuable of all has certainly been the discovery and generalization of anæsthesia, general and local, and particularly ether and chloroform, and the newly discovered cocaine. These extraordinary agents, which have abolished pain, have permitted operations, such as ovariotomy, gastrotomy, the removal of internal tumors, and extensive autoplastic operations for restoration or creation of organs, which, without anæsthesia, would never have been dreamed of.

Mechanics also offers to surgery new and valuable resources, incessantly inventing and improvising instruments, apparatus, and physical appliances of all kinds. The use of India rubber, of solidified substances, such as plaster of Paris and silicate of potash, the introduction of metallic sutures and of the ecraseur, the application of the resources of optics and acoustics, which allow us to see and hear into the depths of organs, and finally, the application of electricity and galvano-caustic, are as many *innovations*, every one of which has marked an epoch of progress and advancement in science. Thanks to the means and resources we now possess, is it surprising that

---

[1] Read in the Section on Surgery and Anatomy at the Thirty Sixth Annual Meeting of the American Medical Association.

Surgery should become more and more *conservative*, that it should tend towards easing without mutilation? The amputation of a limb, not less than the extraction of a tooth, is now looked upon as a last resource, a painful acknowledgment of impotency. The tendency is to save, to preserve. Unfortunately, there will always remain a great number of cases, in which the only resource will be the sacrifice of a limb or organ. Fortunate, in many instances, if we can save life at the cost of a mutilation!

The surgeon of to-day is certainly less inclined to cut, less inclined to heroic treatment, than formerly. Now science has progressed, and we have at our command means which our predecessors did not possess. Resections are being in many cases substituted for amputations, compression for ligation in the treatment of aneurism, the use of water, cold or hot, has in many cases, in ophthalmic and gynecologic practice, advantageously taken the place of caustics and irritants. More advanced hygiene, a better understood régime, surgical drainage and antiseptic dressings, the use of disinfectants and germicides, all these combine to enable us, in many cases, to save life without running the risks of dangerous surgical operations.

The word autoplasty, or aroplasty, as preferred by Velpeau, is from a Greek word, signifying literally to reconstruct, to mould. Autoplasty constitutes certainly one of the greatest triumphs of modern conservative surgery, for the autoplasty of the former ages applied only to the repair of the nose, as we shall see later, while it nowadays has created a special department of operative surgery. The perfection which plastic surgery, says Prof. Gross, has attained within the last twenty-five years is truly wonderful, and affords a striking evidence of the ingenuity, talent, and enterprise of the medical profession in different parts of the world. It has literally been a field of conquest, upon which have been achieved some of the proudest triumphs of the human mind in modern times. Like many other useful discoveries or applications of science, it has passed through succeeding periods of enthusiasm, indifference, and quasi oblivion, until modern surgery has once more revived it and placed it on sound, philosophical, scientific principles.

Autoplasty proper is the art of restoring losses of substances or deformities caused by disease or injury, by means of tissue taken from the affected person itself. In a more extended sense, it may be said to be the art of organic restoration, including the attempts which have been made—successfully at times—to preserve organs partially or totally separated from the body, and the still more wonderful, but less authenticated, facts of separation or restoration of organs made by means of organic living material taken from another individual, man or animal. If so understood, the domain of autoplasty could be stretched very far and one can readily understand to what humoristic and grotesque conclusions the consideration of the subject might lead. In this connection many facts, or so called facts, might be here related which belong more properly to fiction and novel than reality. Many are familiar with the amusing story of Edmond About, entitled "A Notary's Nose." That story may not have been, after all, a pure invention of M. About, if we are to believe certain stories told by travellers in India, who assert that in that country the manufacturers of noses often employ the skin of the buttocks of slaves for the making of noses for grand personages who have had the misfortune to lose, judicially or otherwise, their olfactory organs. We know that cutting off the nose is a legal punishment often imposed in some of the countries of India. Dutrochet, among others, describes minutely the *modus operandi*. The nasal surgeon begins by beating well the region which is to furnish the needed material with a sort of cat-o'-nine-tails, in order to increase the suppleness and vascularity. He then cuts out a thick piece of skin, of proper size and shape, and secures it by means of sutures to the previously denuded borders of the stump. When once prepared he carves out of that region a thick piece of skin of proper size and shape, and secures it by means of proper sutures to the borders of the remaining part of the nose, which has been previously well denuded.

I do not guarantee the authenticity of those various plastic operations, which, no doubt, are to be accepted *cum grano salis*. I may say, however, that, considering the question in its purely anatomical and physiological aspect, the fact of restoration of organs in an individual by skin-grafting from another individual of the same race and species is not inadmissible, especially if connection between the two is not severed until the borrowed tissues have contracted adhesion with the region borrowing them. Reliable authorities give examples of still more extraordinary plastic adhesions. Science possesses many observations of complexed organs, of some considerable volume, such as a nose, a lip, a part of the chin, the end of a finger, which, after being entirely separated from the body, were reapplied, properly secured, and engrafted perfectly well. We read in Boyer that, in a paroxysm of anger, a woman bites off the nose-end of her husband and spits it on the ground. A surgeon, who happens to pass by, picks it up, and, after washing it, applies it and sutures it with care. The nose end united perfectly. In Heidelberg, where duels with the broadsword used to be, and are still, the order of the day among students, ablations of noses are quite frequent. Chelius reports several such cases in which he obtained perfect reunion of noses that had been cut off by the broadsword, and Dr. Hoffacker, the official surgeon of those students' duels, has related in the surgical annals of that University sixteen well authenticated facts of the kind.

The knowledge of the phenomena of cicatrization of wounds and injuries, and of the repairing of losses of substance which take place under our daily clinical observation, gives a satisfactory explanation of the phenomena of autoplasty. The margins of a wound made by a cutting instrument, if placed in juxtaposition, will adhere and unite together completely. The skin of any region of the body, if properly denuded, will unite intimately with that of any other region. These reunions and adhesions are due to effusion of plastic lymph, which becomes vascular and soon establishes a community of circulation between the parts Why could not these adhesions take place between individuals of the same species? Do they not happen at times in the pregnant womb? Do we not sometimes see twins united by fusion of organs, or by simple integumentary adhesions?

Experiments made on living animals confirm and enlighten the teachings of the clinique Odin, of Lyons, was the first to obtain true animal graftings You know of his interesting studies on the periosteum, and of his remarkable sub-periosteal operations Among other experiments, he implanted pieces of periosteum, tails of rats, etc , in the crests of roosters, and saw them take root and develop

We all know that skin grafting in the cicatrization of extensive burns and injuries is daily practised, and gives excellent results

Autoplasty had undoubtedly its origin in India, where it has been practised from time immemorial The barbarous custom of the judicial amputation of noses, above referred to, must have given rise to the art of making noses, or rhinoplasty, which was most likely the first plastic operation performed on man It seems that the number of mutilated noses soon became so great as to give rise to a new industry, and created a special class of practitioners, that of the nasifer Certain Indian tribes, the Kumas, whose fame has reached our days, displayed wonderful talent in the art of rhinoplasty They invented the Indian method, which takes the necessary flaps from the tissues surrounding the loss of substance, twisting the pedicles to better adapt them *in situ*—autoplasty by torsion

The Bianca family, of Sicily, father and sons, were the first to perform rhinoplasty in Europe It was Tagliacozzi, an Italian surgeon, who indicated the scientific principle of this new operation He operated many times himself, and created the Italian method, which takes the necessary tissue for reparation of losses of substance from distant regions—for instance, from the anterior part of the arm in rhinoplasty The first successful plastic operation in Europe attained universal applause and admiration, and procured to Tagliacozzi the honor of having his statue erected in the Anatomical Amphitheatre of Bologna Notwithstanding these successes, which, at times, seems inherent to all new discoveries, autoplasty soon fell into disuse and oblivion, and was condemned by most authors until the year 1815, at which time it was revived, and once more put in vogue, by Caspai, of London Since that time, Dupuytren, Lisfranc, Blondin, Jobert, Liston, Grafe, and Dieffenbach, in Europe, and Pancoast, Warren, Prince and Buck, of this country, have published their successful cases, and introduced in the operative procedure many useful modifications Let us here mention an extraordinary example of courage and perseverance of both patient and surgeon Roan, of Paris, is said to have performed fifteen distinct plastic operations on the same patient, for remedying an awful deformity It is hardly necessary to add that the patient was a young woman

The above named surgeons were the inventors of the procedure *par glissement*, or French method, which dissects the needed flaps from the environing region, and causes them to *slide* and spread, without torsion, so as to cover the loss of substance

Autoplasty applies especially to the repairing of noses, lips, cheeks, ears and eyelids, to vicious cicatrices, to the keeping open of natural orifices which tend to obliterate and closing certain pathological openings, such as fistulæ, etc

The first conditions of success are that the subject be young and healthy, that the plastic flaps be taken from a sound vascular region, that they may be of a certain thickness and well nourished, in order that they may retain proper circulation and innervation with the parts furnishing them, that these flaps be neither too large or too narrow, and that the parts which are to be united be previously properly denuded, and then kept in exact contact by their bleeding surfaces The great danger in the operation is sloughing or mortification of the flaps, which the above-enumerated conditions are intended to prevent As to the results of the operation, they are generally useful, and at times most satisfactory and remarkable, as in the two following cases

A few years ago I was consulted by Miss Corinne M , aged 18 years, from Attakapas She was suffering from a deformity of the face, which caused her excessive mental suffering and made her life a burden to her I heard from her parents that when she was 8 or 9 years old, the child was affected with some kind of terrible fever, during which gangrenosis had supervened, and in spite of all treatment had produced the monstrous deformity for which they now claimed the resources of the surgeon The whole of the left cheek, together with two-thirds of the lower lip, had been entirely destroyed by the sloughing process, and had entirely disappeared, the left commissure of the upper lip was drawn up obliquely by adhesions Instead of the soft tissues of cheek and lip covering the maxilla bones, there existed a deep hollow, nothing but fibrous adhesion and cicatricial tissue covering the surface of the two left maxilla, there had been, evidently, in several spots and especially along the alveolar processes destruction and loss of osseous substance, dense fibrous adhesions existed between the two maxilla bones, which prevented their separation, so that what remained of the mouth could be opened scarcely wide enough to admit the end of the finger, all the teeth had not been destroyed, there were eight of them still firmly implanted in the alveolar ridge, they were of extraordinary size and shape, and projected almost horizontally, resembling the tusks of a wild boar Food reduced to pulp had to be introduced in the mouth with the fingers, in the spaces existing between the teeth, there was scarcely a perceptible lowering of the chin in the act of mastication, which was accomplished with difficulty by simple lateral or side motion There was naturally great trouble in sucking, drinking, swallowing, and articulation of sounds, the voice was deep, hollow and hoarse, and her speech could only be heard with difficulty The poor girl habitually wrote on a slate to convey her thoughts

The right side of her face presented a striking contrast with the afflicted side, the right cheek being round, firm, and of beautiful complexion The eyes were lovely and intelligent, the head well shaped and covered with an abundant growth of beautiful black hair The general health was excellent, and with the exception of that horrible deformity the patient presented all the appearance of robust health, of medium size, fair and plump After having minutely and repeatedly examined and studied the multiple lesions just described, after some hesitation, quite natural under the circumstances, I explained to the family and to the young girl the dangers and difficulties of the long and difficult operation, which alone might possibly correct such a deformity, and for which I could find no precedent in surgical works Without disguising any of the obstacles we had to encounter, I held up to the imagination of the poor victim the brilliant prospect of a complete success She was willing and anxious to take the risk of an operation

A few days after, on the 22d of March, 1871, with the assistance of my friends, Drs Trudeau, Sauvé, Taney, and Castellanos, and in presence of several friends of the family, I proceeded to perform the following operation of autoplasty *par glissement*, which, after complete anæsthesia with chloroform, consisted 1st, In extracting the projecting teeth, 2d, In detaching and dissecting the remaining tissue around the gap produced by such loss of substance, upwards nearly to the lower orbital wall, forward to the nasal bone, and backward to the left ear The fibrous adhesions which united the two maxillary bones, as well as the margin itself, or border of the alveolar process, in both maxillary bones, were carefully removed, detached, or scraped, by the bistouri gouge and chisel, so that the two maxilla could now be well separated, the tempora maxillary articulation being intact

The complete detachment or dissection of tissues above, forward, and backward, would have scarcely covered one-third of the ugly gap My main reliance was in the formation of a thick, well nourished flap, well quilted with adipose and cellular tissue, cut out of the left antero lateral region of the neck In making that flap, dissection was carried downwards to two inches from the clavicle What remained of the lower lip, a small ball of flesh of the size of an egg hanging over the chin was utilized to best advantage, its mucous surface, which was greatly in excess over the cutaneous, was used as a buccal border to be accurately stitched to part of the upper border of the lower or neck flap It was only after having ascertained by repeated trials and measurements that there was sufficient tissue to cover abundantly the gap in the face, that all these flaps were brought together, but not before all hæmorrhage had ceased This was of a trifling nature, no large vessels having been cut during the operation

Sutures with silver thread and fine silk were applied with extreme care, not less than fifty stitches being necessary to accurately close the large *hiatus* The operation, including the suture and dressing, lasted two hours and twenty minutes In autoplastic operations, under chloroform especially, the precept "*Cito*" finds no application We should above all proceed slowly and unhurriedly, with geometrical precision It is a delicate operation, which has particularly but justly been compared to miniature painting, it must be well *finished*

For eight days the head was kept inclined forwards by means of a special cap and bandage, the patient being watched day and night to avoid all movement, all drawing on the flaps No local application except compresses dipped in cold water Milk diet No untoward complications supervened The threads and sutures were gradually removed between the eighth and fifteenth days On the fifteenth day she got out of bed The results surpassed by far our most sanguine expectations Miss M C now had a human face Perfect reunion had taken place in all the lines of cicatrization One single sitting, one operation had been sufficient to obtain a most wonderful result, while at times ten and fifteen plastic operations have been necessary for a satisfactory result

A month after the operation the patient returned to her home in Attakapas, scarcely recognizable to her best friends Six months after she wrote to me "I am perfectly happy I can eat, drink, speak and sing as well as anybody, and I am soon to be married " Miss M C is to day living at Port Brown, a happy wife and mother She has certainly well deserved her happiness

My second case is less complicated It is simply a case of rhinoplasty It was performed a few weeks ago in New Orleans, with the assistance of Drs Ayres and Underhill Mrs B, living in the third district, was one of the many victims of a quack, or cancer doctor, living in that part of the city She consulted him very foolishly, as some even more enlightened and aristocratic people will often do, for a small pimple, a trifling one, probably, on her nose She was, at the time, and is to day a splendid specimen of health and vigor, the mother of several fine, healthy children Her pimple, she says, was of the size of a small pea, and caused no pain, it did not bleed, only it was annoying to her Some unknown violent caustic was injudiciously applied to it, and the result was that a few days after, when the eschar fell off, there remained a hole in the middle of the nose sufficiently large to admit the first phalanx of my thumb, the skin, cartilage and part of nasal bones had been destroyed, and the tip of the nose, unsupported above, was perfectly loose and movable in any direction The Schneiderian membrane was highly inflamed in spite of the patients efforts to protect it from wind and dust The sense of smell was entirely lost Such was her condition when she came to me a year after the cauterization With the exception of the root of the nose, which was covered with cicatricial tissue extending towards the forehead, the adjoining tissues were healthy, the cheeks full and plump In deciding upon the mode of operation, we concluded to make two thick lateral flaps from the cheeks to bridge over the large opening, operation *par glissement* The patient being completely under the influence of chloroform, the borders around the loss of substance, particularly the loose extremity of the nose, were well denuded, and two thick, well-nourished lateral flaps, one inch and a half long, and of the width of the hiatus, were dissected from the cheek on both sides Two small arteries were twisted, and the flaps were accurately drawn over and applied to each other, in the median line, and to the denuded tissues above and below Fourteen silver sutures were used Reunion by first intention took place, and the result of the operation was perfect

I should here remark that the climate of Louisiana is most favorable to the success of autoplastic operations, and to surgical operations in general We but very seldom have here erysipelas, gangrene, or pyæmia following the most serious operation, and union by first intention, after amputation of limbs or of the breast, with or without antiseptic dressings, are far from being unfrequent I have had several cases in my own practice Our climate has some analogy with that of Lower Egypt where operations are remarkably successful A warm, damp atmosphere, resembling that of a hot-house, is favorable to vegetation Why should it not be so to animal growth, to cicatrization, to repairing of tissue?

Louisiana now boasts of comparatively the largest number of Cæsarean operations, and when the results of the ovariotomies, performed in this State, will have been published, they will be found to compare favorably with the most favorable of any other country in Europe or America

PENETRATING PISTOL-SHOT WOUND OF ABDOMEN —LAPAROTOMY—SUTURE OF INTESTINES— PELVIC HEMATOMA—RECOVERY

BY JOHN B HAMILTON, M D,

SUPERVISING SURGEON GENERAL U S MARINE HOSPITAL SERVICE
PROFESSOR OF SURGERY UNIVERSITY OF GEORGETOWN, ETC

Notwithstanding the manifest soundness of the arguments in favor of operative interference in case of penetrating wounds of the abdomen, the weight of modern authority as indicated in the surgical text books is still against it, and it is only by the reports of cases where an actual test is made upon the human subject that the truth will ultimately prevail The careful and conscientious experiments of Parkes upon dogs, while carrying conviction to the minds of many, are yet met by the masses with the objection so quaintly urged by Turner,[1] that "the comparative anatomy is not a sufficient foundation for us to go upon, in taking experiments thence, cat's guts and man's being so widely different in their texture We have many instances of these parts wounded in brute creatures, and after sewing up again, they have been let go to lick themselves whole on the outside, while nature is playing the surgeon within Nay, Dr Musgrove acquaints us that he took out the coecum of a bitch, carefully tying up the vessels and stitching up the divided parts, when in three weeks time she seemed as well as ever"

To the case recently reported by Dr Bull, of New York, I now add the following

J W Wood, a mulatto, æt 19, a waiter at the Tremont House in this city, was accidentally shot by a pistol carrying a 32 calibre ball The wound was received at 2 10 P M, and he was taken to the Providence Hospital There was considerable shock I examined him at 4 20 P M and found that the missile had entered the skin about an inch to the right, and an inch above the navel A flexible Nelaton probe following the track of the ball passed downward and inward under the rectus muscle and entered the abdominal cavity The probe was withdrawn and the patient etherized There were present Surgeon J C McKee, U S Army Surgeon G W Stoner, Marine Hospital service, and Dr D P Hickling, the House physician The belly having been shaved, and washed with solution of bichloride mercury, an incision was made in the linea alba about six inches long, the peritoneum raised and incised A spurting artery was seen in the mesentery, and the abdominal cavity was full of blood The artery was immediately tied with a fine catgut ligature, the intestines drawn out loop by loop, and the wounds stitched with Lembert's suture as fast as they could be reached Eleven wounds requiring suture were found in the small intestine, and two in the ascending colon The wounds varied in size from a mere nick in the wall of the intestine, to those where the ball had passed directly through it, and all were everted, the mucus surface pointing out

There was no fæcal extravasation, doubtless owing to the fact that less than two hours had elapsed from the time of receipt of the injury, but a canteloupe seed was seen and removed from the mesentery The omentum was cut by the ball in several places, and as it was difficult to stop the oozing, a ligature was placed around the wounded mass and it was cut off All sutures and ligatures used were the finest size of carbolized catgut The abdominal cavity was then sponged with solution of bichloride of mercury, cleaned and dried, and the incision carefully closed with deep sutures of silver wire and superficial ones of silk Narrow strips of adhesive plaster were then placed across the incision about an inch apart, a square of sublimated gauze laid upon it, and iodoform dusted over the gauze and the surface round about A broad flannel bandage was then placed snugly over the abdomen, the patient placed in bed, and as there was still some shock from the combined effects of the anæsthetic and the wound, he was surrounded with bottles of hot water Reaction took place shortly, and he was given 06 gm of opium every three hours

Sunday, July 12, 8 A M —Temperature 100 2° F, pulse 112, respiration 20 6 P M, temp 100 8, pulse 130, resp 24 General condition good, and had slept several hours during the day Diet confined to beef tea

Monday, July 13, 8 A M —Temp 101 6, pulse 112, resp 20 Patient restless, complained of pain in wound, and in right testicle There was *much* tenesmus, and a gentle effort was made to administer an enema, but the small quantity of water thrown in was without effect The frequency of the opium was then increased to 06 gm every two hours The abdomen was moderately distended A lotion of lead and opium was applied to the painful testicle

---

[1] Turner Daniel "The Art of Surgery" London 1741 Vol II

Tuesday, July 14, 8 A M—Temp 101 4, pulse 112, resp 20, 6 P M, temp 100 8, pulse 112, resp 20 The distension of abdomen increased The patient was very restless, and complained of a throbbing pain in the wound A rubber water coil was applied during the day, and at 6 30 P M the lower portion of the wound was re opened, and by suction with a syringe it was sought to ascertain whether pus was present or not None was found, and after injecting the wound with the mercuric solution, it was again drawn together The opium was then increased to 06 gm every hour Tympanites troublesome

Wednesday July 15, 8 A M—Temp 101, pulse 104, resp 16 Patient slept some during the night, but very restless Tympanites still a source of great discomfort 6 P M, temperature 103, pulse 124, resp 28 Ether administered for the purpose of giving an enema, some fæcal matter came away The opium was then reduced to 06 gm every three hours, and sherry wine every four hours A flaxseed meal poultice was applied to the scrotum

Thursday, July 16, 8 A M—Temp 100 5, pulse 112, resp 28 Patient had several stools during the night, had slept but little, was uneasy and the tympanites great At 6 P M temperature 101 2, pulse 112, respiration 16

Friday, July 17, 8 A M—Temp 98 4, pulse 128, resp 24 The patient had several stools during the night, which were exhausting and painful To check the diarrhœal tendency gave

Quiniæ sulph /90
Tr kino
Syr rhei aromat āā 16/

M et sig—Teaspoonful every 3 hours Chicken broth substituted for beef tea

6 P M—Temp 101 5, pulse 112, resp 32 The tympanitis still great, and a rectal tube was introduced, without result

℞ Ol terebinth, 8/
Mucilaginis acaciæ 64/

M et sig—A teaspoonful every 4 hours Opium discontinued

Saturday, July 18, 8 A M—Temp 101 2, pulse 112, resp 24 Had five stools during the night, and the abdomen was quite free from tympanites 5 30 P M—The patient had a convulsion lasting five minutes, and as there had been no operation from the bowels during the day the astringent mixture was stopped Two silver sutures were removed and several silk ones An exploring needle was introduced into the painful and swollen scrotum without result 6 P M—Temp 101, pulse 112, resp 24

Sunday, July 19, 8 A M—Temp 100 6, pulse 112, resp 24 Exploring needle again introduced into the scrotum without result, and at 2 P M six leeches applied Milk and lime water added to diet, and as the diarrhœa had again set in, the astringent mixture was renewed 6 P M—Temp 100 8, pulse 100, resp 40

Monday, July 20, 8 A M—Temp 100 2, pulse 100, resp 24 No stool during night, but large quantities of flatus passed The testicle still painful, fluctuation present, incision made, pus to the amount of 10 ounces evacuated, and the cavity washed out with the compound solution of bromine At noon the patient was cold, and extremities bathed in clammy perspiration He was sponged with hot mustard water At 4 30 P M, one small stool was passed, containing two lumbricoid worms 6 P M—Temp 100, pulse 100, resp 28 At midnight, the coolness of extremities continuing, whisky 16 gm was given every hour

Tuesday, July 21, 8 A M—Temp 99 8, pulse 92, resp 28 Whisky stopped at 9 A M 4 P M—The patient had epistaxis 6 P M—Temp 100, pulse 104, resp 24

Wednesday, July 22, 8 A M—Temp 99 6, pulse 90, resp 24 6 P M—Temp 100 2, pulse 100, respiration 24

Thursday, July 23, 8 A M—Temp 99 6, pulse 88, resp 24 Tongue furred Ordered quininæ sulph 24 gm three times daily At 5 P M, Dr Hickling found the patient in great tenesmus, requiring bedpan constantly, only mucus passed the rectum, and an enema was ordered which returned about four ounces at a time At 10 P M, the tenesmus again coming on, the doctor made an examination and discovered a large tumor in the rectum pressing on the rectum A hypodermic injection of morphia was given and the patient slept four hours, after which the pain returned, and while on the bedpan he passed the bullet

Friday, July 24, 8 A M—Temp 99 8, pulse 88, resp 20 The patient's general condition was very good I examined the tumor through the rectum and found it to be a pelvic hematoma As the tumor seemed quite solid at its upper portion, I felt quite confident that nothing but its breaking down, would relieve the violent and almost constant tenesmus, so I passed a narrow bladed knife through the rectum in the median line, about two inches within the anus, directly into the tumor There gushed out at once about a pint and a half of thin badly smelling blood, and as the patient seemed so weak I did not complete the operation by passing an instrument into the puncture and breaking down the clot In a few minutes another fit of tenesmus came on, during which about the same quantity of badly smelling blood came out through the puncture, and I became anxious to control its flow as the patient was almost in syncope, a plug of lint was inserted in the rectum above the puncture, and the portion below filled with ice Hypodermic injections of whisky with ammonia were administered Hot beef tea given by the mouth, hot bottles placed around him, and the foot of the bed elevated He revived and commenced to improve

Saturday, July 25, 8 A M—Temp 101, pulse 112, resp 28 Patient still weak, the plug was removed from the rectum Beef tea with milk punch every two hours 6 P M—Temp 100, pulse 112, resp 24.

Sunday, July 26, 8 A M—Temp 99 8, pulse 104, resp 28 Passed a small amount of fæces during the night The tumor could still be felt through the rectum, but only about one-third the original size

From this time on the patient steadily progressed toward recovery On the 1st of August the hematoma had entirely disappeared, and he was discharged well on the 8th of August, and on that day went by rail to his home, near Charlottesville, Va

The record of this case, kept so accurately by Dr Hickling, I have transcribed at the risk of being tedious, but I do so that one may be impressed with the incalculable care and patience required to successfully treat these cases The conclusion of the operation was, as will be seen, by no means the end of the anxiety In regard to the passage of the bullet, I had observed when sewing up the last wound in the colon that there was no counter opening, and as I could find no abrasion of the pelvic wall, nor of the iliac fossæ, I was forced to the conclusion that the bullet had remained in the bowel, I therefore gave orders that all fecal discharges should be carefully examined, which was systematically done from the time of the first discharge until the passage of the bullet

As the patient's recovery prevented an actual observation of the cause of the hematoma, I can, of course, only offer a conjecture, and that is that oozing continued from the mesentery, there was a large nick chipped out of the connective tissue next the small intestine in one place, which as the ball did not penetrate the intestine nor rupture an artery, I did not think it worth while to tie in mass I now think the spot should have been touched with caustic or some styptic The actual cautery could not have been used on account of the danger of penetrating the intestine Had this cut received attention, it is possible that the pelvic hematoma with its attendant complications might have been avoided This latter complication is scarcely mentioned in the surgical works, certainly not in connection with wounds of this character Pelvic hematoma in the female, on the contrary, has a quite extensive literature, but I have not seen it prominently mentioned that its most aggravating feature is the pressure on the rectum accompanying it It is not easy to thoroughly clean the abdominal cavity, where there has been considerable hemorrhage the surface of the bowels will be found smeared with blood, and the "toilet of the peritoneum" cannot be made with such perfection as it is possible to attain in ovariotomy, so that it is doubtful if the coming statistics of the operation will prove as favorable as in ovariotomy, but even with that disadvantage they will be vastly superior to the statistics of the wounds without operation

LITERATURE

The following opinions are interesting

"But if the great intestines be wounded, and the excrements discharge that way, it may be reasonable to lay open the wound and stitch the gut with the glover's stitch, sprinkling it with some of the aforesaid agglutinatives, and, reducing it back, stitch up the external wound of the belly, as hath been said "—*Wiseman* [1]

"But the question may be asked here whether a surgeon may not prudently, in this case, enlarge the wound of the abdomen, that he may be able to discover the injured intestine, and treat it in a proper manner Truly I can see no objection to this practice, especially if we consider that upon the neglect of it certain death will follow, and that we are encouraged to make trial of it by the successes of others Scacherus,[1] in Programmati Publica, Leipsig, ed 1720, mentions a surgeon who performed this operation successfully "—*Heister* [2]

"With very few exceptions, bullet wounds into the abdominal cavity are fatal It may be a question worthy of serious thought, in view of the hopelessness of our present practice, whether we ought not to cut boldly into the abdominal cavity, wash out the filth, and, bringing the wounded intestines to the surface, endeavor to produce an artificial anus "—*Andrews* [3]

"In examining the external wound, when no protrusion exists, should we find an escape of fecal matter—which proves that the bowel has been perforated—the abdominal wound must be enlarged, and the wound in the intestine closed by suture This is the only expedient for saving life, for if the contents of the bowel are allowed to escape into the peritoneal cavity, a fatal issue must be expected "—*Chisholm* [4]

"Already interference contrasts favorably with the do nothing system Reflection upon the results of ovariotomy, upon the results of gastroraphy and enteroraphy, applied to protruded wounded viscera, leads unavoidably, in the writer's opinion, to a conviction of the propriety of incising the abdominal wall when necessary in order to expose and sew up the wounded gut concealed within the cavity, whether divided by a cutting instrument or shot The obstacles to success are obvious, but it is a mortal peril which demands an extreme remedy "—*Otis* [5]

"I have the deepest conviction that there is *no more danger* of a man's dying of a gunshot or other wound of the peritoneal cavity, properly treated, than there is of a woman's dying of an ovariotomy, properly performed And, by the application of the same rules that guide us in ovariotomy to the treatment of gunshot wounds penetrating the abdominal cavity, there is every certainty of attaining the same success in these that we now boast of in ovariotomy "—*J Marion Sims* [6]

"When any of these conditions are present, the duty of the surgeon is clearly to enlarge the opening in the abdominal wall, or to make a new one in a more favorable location, sufficiently to admit of examination of the viscera in the track of the wound, to detect and ligate bleeding vessels, to suture intestinal rents, and to thoroughly cleanse the peritoneal cavity of extravasated matters "—*Pilcher* [7]

"Primary abdominal section in the mid line, gives the best command over the damage done, and furnishes the most feasible opening through which the proper surgical treatment of such damage can be instituted Further, its adoption adds but little, if anything, to the peril of the injury "—*Parkes* [8]

"I desire now to call attention to the fact that operative interference for gunshot wounds of the abdomen has been put to a practical test, and that it has been successful, and I hope that other members of this society may share my conviction that this plan of active treatment is now justified by these two successful cases, and that it should be adopted (within proper limits), to the exclusion of the 'let alone policy ' "—*Bull* [9]

---

[1] Wiseman "Of Wounds of the Belly,' book 5, chap viii London 1676

[1] This was a mistake The author was Friderici who made an inaugural address before Scacherus (*Otis*)

[2] Heister Laurentius, Institutiones Chirurgicæ

[3] ' Record of Battles Fought near Vicksburg ' page 34 Chicago 1863

[4] Chisholm J J A Manual of Military Surgery for the Use of Surgeons in the Confederate States Army ' Richmond 1862

[5] Medical and Surgical History War of Rebellion," part 2, surgical volume p 128

[6] British Medical Journal Mar 4, 1882

Pilcher Lewis S 'The Treatment of Wounds pp 356 7 New York 1883

[8] Parkes, Chas T "Gunshot Wounds of the Small Intestines" Chicago 1884

[9] New York Medical Journal Feb 14th, 1885

RUPTURE OF THE SPLEEN FROM A PHLEBOLITE, WITH CONSEQUENT DEATH.—UTERUS UNICORNIS.[1]

BY CHARLES F. DARNALL, M.D.,
OF WALNUT, IOWA.

The subject of pathology being especially important to the physician, I take pleasure in contributing a mite to our accumulation of knowledge upon that topic, and it is done with the confession that wherever the writer has been wrong in his deductions and conclusions, it is for the reason that he has followed a rather obscure path, and not from the fact that the approval of others has been the incentive.

My subject, as indicated above, is the result of a *post mortem* examination, and the conditions therein existing were so new, that they have been investigated and formulated with the belief that the presentation will excite at least a momentary interest.

I was called on the morning of January 30, 1885, to see a German woman, æt. 36, VI-para, who had been attacked at four o'clock that morning with sudden pain in the bowels, followed by shock and syncope. The pulse was 120, temperature 96° F., and respiration 30, with prolonged expiratory efforts and much general suffering. There was no history of malaria, typhus or typhoid fevers, or any of the dyscrasiæ, nor of rheumatism or disease of the muscles or joints. She had never experienced any pulmonary or hepatic trouble, her nervous system had always been supposed to be in good condition, her menstrual periods easy and regular, without any ovarian or uterine difficulty. She had always occasional attacks of indigestion, unaccompanied with much pain, and her bowels were usually in a constipated condition. Her principal cause of sickness was in her kidneys, and her physician had treated her for "Bright's disease" a few months before her death. She was confined to her bed for several weeks with the supposed albuminuria, and only partially recovered. From her subsequent symptoms it is to be conjectured that she was afflicted with acute idiopathic cystitis. For a few weeks previous to the time when she was first seen, her physician, in treating her for her constipation, exhibited jalap, rhubarb, and other drastics, meeting with no success, as their effect was unable to correct her condition.

When she was first seen by the writer there was pain on pressure over the spleen and also in the right iliac region, and the omentum gave on palpation a peculiar brawny sensation, with no tympanitis or peritonitis. No absolute diagnosis being made other than that of a possible perforation of the bowel, an enema was ordered, with alcohol, quinine, and opium, hot poultices to the abdomen and dry heat to the extremities. Reaction did not follow, and death ensued on the morning of Feb. 2, three days afterwards.

Twelve hours later a *post-mortem* examination was held. The intestines were found empty, congested, and distended with gas. The omentum was injected, dry, and œdematous, with little serum or blood being present in the peritoneal cavity. The first thing that came to our notice was the half-filled bladder, the whole tissue of which seemed injected and hyperæmic. The uterus was found prolapsed, and the right ovary as large as a hen's egg, while the fimbriated extremity of the Fallopian tube was of a black, gangrenous condition, enlarged and infiltrated. The entire broad ligament was congested up to its attachment to the uterus. The ovary was opened, and discovered to be in a state of cystic degeneration, filled with clear albuminous liquid. Search was made for the left ovary, but it was entirely missing, as was also the round ligament, ovarian ligament, and usual blood-vessels, forming the anomaly known as *uterus unicornis*. The unilateral development characteristic of this rare condition of the uterus so far as the fundus pointing toward that side in which the ovary was present, was obliterated, being found in its highest state of perfection in the virgin, and as this woman had given birth to a child a few months before, the body of the uterus seemed not to have yet returned to that period of involution when this feature would be especially prominent.

The broad ligament was present, and between its folds was found the organ of Rosenmuller. As menstruation had taken place three weeks before death, the remaining ovary was further examined. A portion of it was found to be of normal tissue, full of Graafian vesicles, and *corpora lutea* in various stages of development and disappearance. The latter were of different sizes, lined with the duplicature of yellow granules of fat, and in the centre of one or two were blood clots. Surrounding them the tissue was of the natural type—not congested—and extended over upon the sides of the main cyst, showing it had sprung from one of them, and was of recent growth. Externally the walls of this cyst were of a white fibrous nature, internally of the peculiar bluish color common to ovarian tumors. The degeneration being multilocular, several very small cysts were in the parenchyma of the ovary, adjacent to the largest cyst, all filled with brownish or straw-colored liquids.

Proceeding in the search for the cause of death, the stomach was found to be in a rather congested state, the liver dark colored with spots of atrophy or contraction, and the kidneys injected, enlarged, and flabby. The spleen was atrophied, and upon the external surface near the superior edge we discovered a rent or laceration, large enough to admit the finger, from which exuded a small quantity of clotted blood. The solution of continuity was transverse to the length of the spleen, about two centimetres long, and in depth nearly three centimetres. Upon the internal surface was found what appeared to be a spot of fatty degeneration, as large as a silver dollar, covered by a tough yellow covered serous membrane, which being opened gave vent to a discharge of lymph or detritus. The bottom of the laceration was contiguous to this diseased spot, there being only about a centimetre of tissue intervening. In making this cursory examination of the abdominal viscera, a glimpse was caught of a foreign substance laying among the folds of intestine, and our next discovery was this same body in Douglas's fossa, whence it had gravitated during our manipulations

---

[1] Read before the Iowa State Medical Society at Cedar Rapids, May 20, 1885.

This was of a hard nature like a renal calculus, nearly the size of a horse bean, curved on the flat, rough, no facets, and in weight about one gramme.

Naturally we linked together this concretion and the rupture in the spleen, but doubt being expressed that a calculus could come from a ductless gland, careful search was made of the intestines, gall cyst, kidneys, and ureters, in the hope of finding an opening whence it could have escaped into the abdomen, but with no success. The rupture in the spleen was of such a nature as showed the spontaneous expulsion of the body, and upon a second search being made with the same result, the conclusion was forced upon us that this unpretending organ in the human economy was the *habitat* of the nodule, and that its presence, or rather its liberation, was the cause of rupture and death.

I have been unable to find on record such a thing as a *splenic* calculus, but our standard medical lexicographer (Dunglison) says in his definition of the word that a calculus may form in the substance of a body or organ, as the result of nutritive irritation, and be expelled spontaneously. Prof. Fitz says, in the new "American System of Medicine,"[1] that pathological deposits, in the form of calculi, occur in those organs which convey in canals their peculiar secretory fluids, and that these are formed of the predominating inorganic matter in them, as, for instance, a renal calculus in the pelvis of the kidney, which on analysis will be found to be composed of the urates of sodium, potassium, calcium, magnesium, or ammonium, or their phosphates or oxalates. The spleen having no duct, the question of this being a calculus is exploded and disposed of.

The next thought is of tuberculous origin, but we may differentiate that idea. There was no evidence of a tuberculous deposit in the mesentery, liver, or intestines, and where the abdominal cavity is invaded it is more apt to become general, and does not attack a small portion of one organ leaving the balance of the viscera alone. Besides the deposits are of the miliary type at first, small minute bodies, and in consistence are not hard like the one under consideration, but of a soft waxy nature, easily cut, and showing the presence of earthy deposit. They are never of such hardness as to cut out of a tissue spontaneously making a free and clean incision. There *can* be tuberculous calcific degeneration, but the agglomeration of single tubercles and consequent calcification cause a mush or cheese-like substance to form, and never hard or stony, which excludes this thought, and we now turn to the next theory, which probably is more correct.

The question of concretion presents itself as a plausible one, when we understand that cretaceous degeneration may take place in any portion of the body. Calcification is a deposit of salts, previously held in solution in the blood, under abnormal circumstances, in and upon organic matter, as the result for instance of an inflammation. This inexplicable fact is well known, and Stricker says, in the "International Encyclopædia of Surgery," that "tissues have the property of depositing lime salts. . . . As cartilage is converted into bone, it must deposite lime salts in its basis substance. But cartilage calcifies sometimes (as for example under the influence of slight inflammatory stimuli) without being converted into bone.

Of pathological calcifications of other tissues, too little is known beside the mere fact that they do occur, to warrant my considering them here." Fitz says further that concretions occur in the tissues of organs, and are collections of inorganic salts chiefly the carbonate and phosphate of calcium, hence deposited through the agency of the blood. It is not necessary that these calcifications take place in the solid portion of an organ, for viens are often found with a concretion, or *phlebolite*, and this is the development of my investigation. That this is a concretion an analysis showed it to be carbonate of lime, while the laceration in the spleen terminated in the splenic vein, enlarged and dilated, into which the vein stone I present seemed to fit quite naturally.

The absolute cause of this strange foundation is of course speculative, but so far as a general review of literature has to do with forming an opinion, the preponderance is in favor of hemorrhagic infarction, according to Cohnheim,[1] or coagulation-necrosis, as it is termed by Ziegler.

An embolus being arrested in a small artery, inducing extravasation and a secondary thrombus in the splenic vein in consequence, or a primary thrombus arising from a similar source in the vein, underwent transformation, interfering with the necessary blood supply of the surrounding area, and caused upon the surface of the spleen what Ziegler calls the "opaque yellowish white conical patch." Guillebeau endorses this opinion saying that splenic infarcts are hemorrhagic, quickly becoming decolorized and degenerated. Green[4] says that infarcts are usually found in the spleen, wedge shaped with the apex of the cone toward the centre of the organ, rapidly undergoing softening and disintegration, by regurgitation from the veins into the capillaries.

The theories of Rokitansky regarding phlebolites is that they are caused by a retarded flow in the veins, coagulation and incrustation following, and that within the concretion is an irregular brownish fissure,—the clot, which is found within the one under consideration. He writes[6] "We not unfrequently find the sheath of the spleen indurated and cartilaginous, or ossified, and at the same time ossification of the arterial ramifications and free calcareous concretions (Phlebolithes) in the veins of the organs." In *Medinische Encyclopadie* he says that in atrophy of the spleen as a result of perverted nutrition small concretions are found in the walls of veins, which are free and chalky. They show no symptoms and consequently are not amenable to treatment. Ziegler[7] says of petrifaction that the process is derived from the salts in the blood, not simply precipitated and retained, but formed as a solid compound. He mentions that large infarcts of the spleen are sometimes imperfectly reabsorbed, so that the cicatrix incloses a necrotic caseous patch

---

[1] Vol. I, 1885, p. 89.
[2] Vol. I, 1881, p. 62.

[1] Ziegler's Path. Anat. Wood's Library, July 18, 1883, Art. 36.
[2] Ibid. Art. 36. [3] Ibid.
[4] Pathological Anatomy, Phila. 1881, p. 192.
[5] Path. Anatomy, Syd. Ed., Vol. IV, p. 356.
[6] Ibid. Vol. II, p. 167. [7] Op. Cit., Art. 64.

Ponfick attributes[1] the formation of these bodies to thrombi in the veins, but says it is an hypothesis Delafield and Prudden say that the contents of an abscess of the spleen as the result of embolism may dry, shrink, and become calcified Orth, in his "Lehrbuch der Pathologische Anatomie," states that phlebolites of the spleen are occasionally found, mentioning no case, and speaks of the frequency of degeneration of an infarct from embolism He says they may become absorbed and contain lime salts Birch Hirschfild claims that phlebolites are occasionally found in the spleen resulting in each case from calcification of the thrombus in enlarged veins

Morgagni[3] records a case in which a phlebolite of the spleen was discovered, in an autopsy, weighing twenty one drams Bristowe[4] has found them in the spleen and various organs of the body, and attributes their presence as the result of an adherent blood clot, undergoing degeneration Callender[5] calls them loose calculi, producing no inconvenience Bichat[6] thought they occurred in veins wherein there was slow circulation Hasse[7] found them in varicose veins, which also is Paget's theory[8] Aitken[9] calls them products of petrifaction of blood clots in enlarged veins Quain[10] says they form from a clot in a vein, and are perfectly harmless Gross[11] states that ten, twenty, or thirty phlebolites may be found in enlarged veins of the spleen and pelvic organs Merbach[12] repeats that they are found in cirsoid or varicose veins, usually in the pelvis, composed of blood and inorganic matter Cruveilhier's[13] theory is that they are developed in a clot of blood Druitt[14] in his surgery shows an illustration of a female who had several phlebolites in irregularly dilated veins under the lower jaw, which were removed with the knife

The only other case I can find on record of a knowledge of their presence *ante mortem* is reported by Gould,[15] who found in a female patient a concretion over two inches long, laying in a dilated vein transversely across the tendon of the semitendinosis muscle in the popliteal space, and its formation he attributed to a thrombus It was not removed Wyeth[16] says that phlebolites are found in cutaneous venous tumors, and in opposition to what has been cited, says that the circulation is active Our various works of surgery mention phlebolites, and the opinions are circumstantially as given above I can find also that these concretions are found in hæmorrhoids, as well as in the external genital organs

Nearly sixty cases of rupture of the spleen can be tabulated, so far as my study has gone, and about one fourth occurred spontaneously after unusual muscular exertion, for instance after vomiting, straining at stool or a sudden twist of the body In all these cases the viscus had previously suffered from disease, as malaria typhus or typhoid fevers, or some malady resulting in softening of its tissue Traumatic causes make up the other three-fourths, and are usually gunshot wounds, blows, and falls Of all cases of rupture, none is recorded as being caused by a concretion, and as death in my patient undoubtedly ensued from rupture in consequence of liberation of the phlebolite induced by hard straining at stool, this is placed on record as perhaps the first case of the kind In a communication from Surgeon-General Billings, librarian of the Army Medical Museum and Library, he says, "I have had our index references to rupture of the spleen examined There are many cases of rupture of the spleen reported, but I have not found any due to or connected with a phlebolite "

The malformation of the uterus and appendages is another rarity, and want of time forbids a lengthy discussion of the condition The text books all speak of *uterus unicornis*, but Tait[1] in his book says he has been able to find on record only one case of this singular development This he credits to Chaussier as quoted by Busch

---

[1]Path Anat p 363 [2]Lehrbuch der Path Anat p 140
[3]Wardell Reynold s Syst of Med Vol III p 471
[4]Bristowe ibid Vol II p 883 [5]Holmes Surg q v
[6]Anat Gén par Béclard [7]Vide Holmes Art by Callender
[8]Lecture 29 p 488 [9]Aitkin s Practice Vol I p 127
[10]Quain Dict of Med
[11]Gross Surg Vol I p 817
[12]Medinische Encyclopädie Art. Milzkrankheiten
[13]Vide Callender op cit [14]Page 320
[15]Phila Medical News Vol XLIII No 9
[16]International Enclycopædia of Surgery Vol III p 372

[1]Diseases of the Ovaries N Y 1883 p 36

THE TREATMENT OF DEEP-SEATED ABSCESSES ASSOCIATED WITH THE TEETH WITHOUT EXTERNAL INCISION[*]

BY JOHN S MARSHALL, M D ,

OF CHICAGO

The subject of this paper is one in which I have taken great interest for a considerable time, and have been hoping that the day would come, when some means would be suggested whereby its attendant dangers might be lessened, and the need for the use of the knife in most cases, done away with

By *deep seated* abscesses I desire that you will understand me as referring to those cases of alveolar abscess, which have extended beyond the ordinary limits, and have involved more or less extensively the structure of the jaw, with a tendency to necrosis, or have penetrated the antrum of Highmore, or have escaped from the neighborhood of the maxilla, and have burrowed downwards between the muscles of the neck, as frequently occurs in abscesses associated with the inferior teeth

Ordinarily the diagnosis of these cases is not difficult, but occasionally the cause of the disease has proved troublesome to find Abscesses discharging into the antrum or the nasal fossa, and producing offensive discharges, have been diagnosed as chronic catarrh One case occurring in the practice of Dr Edward Maynard, of Washington, D C , caused by an unerupted inferior wisdom tooth, and discharging into the larynx, setting up irritative cough with expectoration of pus and mucus, was previously diagnosed by the physicians to be acute bronchitis, others discharging at some point upon the side of the neck, have been set down as abscesses originating in the cervical glands, the result of scrofula That such

---

[*]Read before the Minnesota State Dental Society Aug 1st 1885

This was of a hard nature like a renal calculus, nearly the size of a horse bean, curved on the flat, rough, no facets, and in weight about one gramme

Naturally we linked together this concretion and the rupture in the spleen, but doubt being expressed that a calculus could come from a ductless gland, careful search was made of the intestines, gall cyst, kidneys, and ureters, in the hope of finding an opening whence it could have escaped into the abdomen, but with no success The rupture in the spleen was of such a nature as showed the spontaneous expulsion of the body, and upon a second search being made with the same result, the conclusion was forced upon us that this unpretending organ in the human economy was the *habitat* of the nodule, and that its presence, or rather its liberation, was the cause of rupture and death

I have been unable to find on record such a thing as a *splenic* calculus, but our standard medical lexicographer (Dunglison) says in his definition of the word that a calculus may form in the substance of a body or organ, as the result of nutritive irritation, and be expelled spontaneously Prof Fitz says, in the new "American System of Medicine,"[1] that pathological deposits, in the form of calculi, occur in those organs which convey in canals their peculiar secretory fluids, and that these are formed of the predominating inorganic matter in them, as, for instance, a renal calculus in the pelvis of the kidney, which on analysis will be found to be composed of the urates of sodium, potassium, calcium, magnesium, or ammonium, or their phosphates or oxalates The spleen having no duct, the question of this being a calculus is exploded and disposed of

The next thought is of tuberculous origin, but we may differentiate that idea There was no evidence of a tuberculous deposit in the mesentery, liver, or intestines, and where the abdominal cavity is invaded it is more apt to become general, and does not attack a small portion of one organ, leaving the balance of the viscera alone Besides, the deposits are of the miliary type at first, small minute bodies, and in consistence are not hard like the one under consideration, but of a soft waxy nature, easily cut, and showing the presence of earthy deposit They are never of such hardness as to cut out of a tissue spontaneously, making a free and clean incision There *can* be tuberculous calcific degeneration, but the agglomeration of single tubercles and consequent calcification cause a mush or cheese like substance to form, and never hard or stony, which excludes this thought, and we now turn to the next theory, which probably is more correct

The question of concretion presents itself as a plausible one, when we understand that cretaceous degeneration may take place in any portion of the body Calcification is a deposit of salts, previously held in solution in the blood, under abnormal circumstances, in and upon organic matter, as the result for instance of an inflammation This inexplicable fact is well known, and Stricker says, in the "International Encyclopædia of Surgery," that "tissues have the property of depositing lime-salts As cartilage is converted into bone, it must deposite lime salts in its basis-substance But cartilage calcifies sometimes (as for example under the influence of slight inflammatory stimuli) without being converted into bone Of pathological calcifications of other tissues, too little is known beside the mere fact that they do occur, to warrant my considering them here" Fitz says further that concretions occur in the tissues of organs, and are collections of inorganic salts chiefly the carbonate and phosphate of calcium, hence deposited through the agency of the blood It is not necessary that these calcifications take place in the solid portion of an organ, for viens are often found with a concretion, or *phlebolite*, and this is the development of my investigation That this is a concretion an analysis showed it to be carbonate of lime, while the laceration in the spleen terminated in the splenic vein, enlarged and dilated, into which the vein stone I present seemed to fit quite naturally

The absolute cause of this strange foundation is of course speculative, but so far as a general review of literature has to do with forming an opinion, the preponderance is in favor of hemorrhagic infarction, according to Cohnheim,[1] or coagulation necrosis, as it is termed by Ziegler

An embolus being arrested in a small artery, inducing extravasation and a secondary thrombus in the splenic vein in consequence, or a primary thrombus arising from a similar source in the vein, under went transformation, interfering with the necessary blood supply of the surrounding area, and caused upon the surface of the spleen what Ziegler calls the "opaque yellowish white conical patch" Guillebeau[3] endorses this opinion, saying that splenic infarcts are hemorrhagic, quickly becoming decolorized and degenerated Green[4] says that infarcts are usually found in the spleen, wedge shaped, with the apex of the cone toward the centre of the organ, rapidly undergoing softening and disintegration, by regurgitation from the veins into the capillaries

The theories of Rokitansky regarding phlebolites is that they are caused by a retarded flow in the veins, coagulation and incrustation following, and that within the concretion is an irregular brownish fissure,—the clot, which is found within the one under consideration He writes[5] "We not unfrequently find the sheath of the spleen indurated and cartilaginous or ossified, and at the same time ossification of the arterial ramifications and free calcareous concretions (Phlebolithes) in the veins of the organs" In *Medinische Encyclopadie* he says that in atrophy of the spleen as a result of perverted nutrition small concretions are found in the walls of veins, which are free and chalky They show no symptoms and consequently are not amenable to treatment Ziegler[7] says of petrifaction that the process is derived from the salts in the blood not simply precipitated and retained, but formed as a solid compound He mentions that large infarcts of the spleen are sometimes imperfectly reabsorbed, so that the cicatrix incloses a necrotic caseous patch

---

[1] Vol I 1885, p 89

[2] Vol I, 1881 p 62

[1] Ziegler's Path Anat Wood's Library July 18 1883 Art. 36

[2] Ibid Art 36 [3] Ibid

[4] Pathological Anatomy Phila 1881 p 192

[5] Path Anatomy Syd Ed Vol IV p 356

[6] Ibid Vol II, p 167 [7] Op Cit, Art 64

Ponfick attributes[1] the formation of these bodies to thrombi in the veins, but says it is an hypothesis Delafield and Prudden say that the contents of an abscess of the spleen as the result of embolism may dry, shrink, and become calcified Orth, in his "Lehrbuch der Pathologische Anatomie," states that phlebolites of the spleen are occasionally found, mentioning no case, and speaks of the frequency of degeneration of an infarct from embolism He says they may become absorbed and contain lime salts Birch Hirschfild[2] claims that phlebolites are occasionally found in the spleen, resulting in each case from calcification of the thrombus in enlarged veins

Morgagni[3] records a case in which a phlebolite of the spleen was discovered, in an autopsy, weighing twenty one drams Bristowe[4] has found them in the spleen and various organs of the body, and attributes their presence as the result of an adherent blood clot, undergoing degeneration Callender[5] calls them loose calculi, producing no inconvenience Bichat[6] thought they occurred in veins wherein there was slow circulation Hasse[7] found them in varicose veins, which also is Paget's theory[8] Aitken[9] calls them products of petrifaction of blood clots in enlarged veins Quain[10] says they form from a clot in a vein, and are perfectly harmless Gross[11] states that ten, twenty, or thirty phlebolites may be found in enlarged veins of the spleen and pelvic organs Merbach[12] repeats that they are found in cirsoid or varicose veins, usually in the pelvis, composed of blood and inorganic matter Cruveilhier's[13] theory is that they are developed in a clot of blood Druitt[14] in his surgery shows an illustration of a female who had several phlebolites in irregularly dilated veins under the lower jaw, which were removed with the knife

The only other case I can find on record of a knowledge of their presence *ante mortem* is reported by Gould,[15] who found in a female patient a concretion over two inches long, laying in a dilated vein transversely across the tendon of the semitendinosis muscle in the popliteal space, and its formation he attributed to a thrombus It was not removed Wyeth[16] says that phlebolites are found in cutaneous venous tumors, and in opposition to what has been cited, says that the circulation is active Our various works of surgery mention phlebolites, and the opinions are circumstantially as given above I can find also that these concretions are found in hæmorrhoids, as well as in the external genital organs

Nearly sixty cases of rupture of the spleen can be tabulated, so far as my study has gone, and about one fourth occurred spontaneously after unusual muscular exertion, for instance after vomiting, straining at stool, or a sudden twist of the body In all these cases the viscus had previously suffered from disease, as malaria typhus or typhoid fevers, or some malady resulting in softening of its tissue Traumatic causes make up the other three-fourths, and are usually gunshot wounds, blows, and falls Of all cases of rupture, none is recorded as being caused by a concretion, and as death in my patient undoubtedly ensued from rupture in consequence of liberation of the phlebolite induced by hard straining at stool, this is placed on record as perhaps the first case of the kind In a communication from Surgeon General Billings, librarian of the Army Medical Museum and Library, he says, "I have had our index references to rupture of the spleen examined There are many cases of rupture of the spleen reported, but I have not found any due to or connected with a phlebolite "

The malformation of the uterus and appendages is another rarity, and want of time forbids a lengthy discussion of the condition The text books all speak of *uterus unicornis*, but Tait[1] in his book says he has been able to find on record only one case of this singular development This he credits to Chaussier as quoted by Busch

THE TREATMENT OF DEEP-SEATED ABSCESSES ASSOCIATED WITH THE TEETH WITHOUT EXTERNAL INCISION

BY JOHN S MARSHALL, M D ,

OF CHICAGO

The subject of this paper is one in which I have taken great interest for a considerable time, and have been hoping that the day would come, when some means would be suggested whereby its attendant dangers might be lessened, and the need for the use of the knife in most cases, done away with

By *deep-seated* abscesses I desire that you will understand me as referring to those cases of alveolar abscess, which have extended beyond the ordinary limits, and have involved more or less extensively the structure of the jaw, with a tendency to necrosis, or have penetrated the antrum of Highmore, or have escaped from the neighborhood of the maxilla, and have burrowed downwards between the muscles of the neck, as frequently occurs in abscesses associated with the inferior teeth

Ordinarily the diagnosis of these cases is not difficult, but occasionally the cause of the disease has proved troublesome to find Abscesses discharging into the antrum or the nasal fossa, and producing offensive discharges, have been diagnosed as chronic catarrh One case occurring in the practice of Dr Edward Maynard, of Washington, D C , caused by an unerupted inferior wisdom tooth, and discharging into the larynx, setting up irritative cough with expectoration of pus and mucus, was previously diagnosed by the physicians to be acute bronchitis, others discharging at some point upon the side of the neck, have been set down as abscesses originating in the cervical glands, the result of scrofula That such

---

[1] Path Anat p 363 Lehrbuch der Path Anat p 140
[3] Wardell Reynold s Syst of Med Vol III p 471
[4] Bristowe ibid Vol II p 883 [5] Holmes Surg q v
[6] Anat Gén par Béclard [7] Vide Holmes Art by Callender
[8] Lecture 29 p 488 [9] Aitkin s Practice Vol I p 127
[10] Quain Dict of Med
[11] Gross Surg Vol I p 817
[12] Medinische Encyclopadie Art Milzkrankheiten
[13] Vide Callender op cit [14] Page 370
[15] Phila Medical News Vol XLIII No 9
[16] International Enclycopædia of Surgery Vol III p 372

---

[1] Diseases of the Ovaries N Y 1883 p 36

[*] Read before the Minnesota State Dental Society, Aug 1st, 1885

abscesses often prove to be serious affections, endangering the health and sometimes even the life of the individual, are well established facts I propose however, in this short paper, to confine my remarks to the more common, and from their location, the more dangerous class of these cases, viz those originating from diseases of the inferior teeth

The tendency of the suppurative products in these cases, is downwards through the external wall of the alveolar process, and to point at the lower margin of the jaw, but it also happens—especially with the molar teeth—that instead of pointing at this location, it opens through the internal wall of the alveolar process, and burrows downwards between the muscles of the neck, and may discharge into the throat, or through the external tissues at various points from the submaxillary triangle, to the superior border of the clavicle Any suggestions therefore, in regard to the treatment of these cases, which will tend to cut short the suppurative process, lessen the danger to health and life, avoid the necessity of operating with the scalpel in a location requiring such delicate dissections, and fraught with so much risk to the patient, or to prevent the unsightly and sometimes disgusting scars which follow the external opening of these abscesses, will, I think, be of interest

The treatment generally adopted in cases of alveolar abscess, is the removal of the cause by the extraction of the offending tooth, and then usually trusting to nature to complete the cure In extreme cases of this deep seated variety, an incision is made through the external tissues at the lowest point of the abscess, for the purpose of drainage In those cases, however, in which the pus has burrowed deeply into the tissues of the neck, it is quite likely that more than one pocket will be formed, consequently the treatment by incision becomes complicated, and sometimes from the dangers of an extended operation in the superior or inferior carotid triangles, would be precluded altogether The surgeon, under such circumstances, has had no alternative but to wait, trusting that the abscess would find an opening for itself at less risk, before the patient should die of pyæmia The treatment which is suggested comes to our relief in this emergency and from past experience with it I am prepared to say, at least, that the duration of these cases can be materially shortened, and many of them speedily cured, without resort to any other operative procedure than the extraction of the diseased tooth, and the injection into the sac of peroxide of hydrogen With the introduction to the profession of the peroxide of hydrogen, a valuable antiseptic and germicide has been placed in our hands Ophthalmologists and aurists have found it very useful in the treatment of diseases of the eye and ear, with purulent and muco purulent discharges, and dentists have been signally successful with it, in removing the putrid contents of the pulp chamber in devitalized teeth, in treating the ordinary alveolar abscesses, and phyorrhea alveolaris

By injecting an abscess of this deep-seated variety with H_2O_2 introduced through the alveolus of the extracted tooth, the purulent contents can be thoroughly evacuated The oxygen is set free on coming in contact with the products of decomposition, which distends the cavity and forces out the pus through the alveolus, by mechanical pressure Two or three injections of ʒss to ℥j according to the extent of the abscess, may be required to completely remove the purulent matter, and if given opportunity, it will search out and purify every hidden receptacle I have had several opportunities, since the introduction of H_2O_2 to the notice of dental surgeons by Dr Walter Coffin, of England, at the London International Medical Congress in 1881 (Transactions of the Seventh International Medical Congress)—and to whom this credit is due—to test its efficiency in this class of cases, and in extensive periosteal inflammations of the jaws

In one case, a Mercy Hospital patient, Mary N, Irish, aged 24 years, suffering with a deep seated abscess associated with the right inferior wisdom tooth, and which had been progressing for several weeks, and confining the patient to her bed for 26 days, with pulse ranging from 100 to 116 and temperature from 101° to 104 8°, was speedily relieved by extracting the tooth, and evacuating the pus—the abscess extending down the neck 4½ inches below the margin of the gum, as was ascertained by the probe—the pulse dropped from P 104 T 104 8° on the previous day, to P 96, T 103° two hours after the operation H_2O_2 was ordered to be injected into the abscess ʒss every four hours, this was followed by a decrease in the temperature of one degree each day for three days The patient then refused to submit to the further use of the remedy, as the evolution of the gas, by distending the sac caused pain This was immediately followed by an increase in the pulse rate, and an elevation in the temperature On the fourth day afterwards they had reached P 101, T 104°

H_2O_2 was again used as before, and the pulse and temperature again rapidly fell, but through the obstinacy of the patient, the treatment could not be carried out with any degree of satisfaction still the fact was established that the peroxide of hydrogen, antisepticized the pus and evacuated the sac, as indicated in the rapid improvement of the symptoms

Another case was that of a little girl aged 11 years, with an abscess originating from the right inferior first molar, and extending into the tissues of the neck, accompanied with extensive swelling and tenderness but with no acute pain The swelling of the parts had followed an attack of severe pain in the tooth and jaw, from which she had suffered three weeks previously For a week, the jaws had been closed, and the only food taken each day, was a small quantity of milk The child had been confined to the bed for a part of the time, and when presented for treatment, looked decidedly ill

The tooth was extracted under ether, and the pus cavity found to extend downwards three inches below the margin of the gum Very little purulent matter followed the extraction of the tooth, but on injecting the pocket with H_2O_2 large quantities were evacuated The injections of H_2O_2 were continued once per diem for six days, when the patient was discharged cured Under the ordinary treatment, I should have expected this case to have continued for a much longer period, and perhaps to have seen it finally point at some location lower down the neck Other cases, very much like this one in character, might be mentioned in proof of the value of this remedy

One more however, might be related with profit

This was a case of a lad 9 years of age, who had received a traumatic injury of the inferior jaw, by a fall from his bycycle, and which resulted in an extensive acute periostitis, involving the teeth and jaw, from the location of the second temporary molar of the left side, to the ramus of the jaw on the right side, all of the teeth between these points were loose, pus exuded from the gums at the necks of the teeth, and I feared extensive necrosis

The treatment adopted was injections of $H_{2}O$ beneath the gums at all points where pus was found to exude The condition of the anterior part of the mouth began to improve at once, but opposite the first permanent molar, at the lower margin of the jaw, it was necessary a few days later to open an abscess which was about to point at that location The injections were kept up for two weeks All discharge had then ceased, the teeth had become firm, and the patient was discharged

Dr Harlan has recently called attention to the use of $H\ O$ in purulent conditions affecting the maxillary sinus (*Archives of Dentistry*, p 204, May, 1885), and I would suggest that it will be found equally valuable in the hands of the surgeon in nearly every variety of suppurative inflammation, especially in periostitis, necrosis and deep seated abscesses, when there is difficulty in completely evacuating the purulent matter by the ordinary means

242 Wabash Avenue, Chicago

CITRIC ACID IN THE EXTIRPATION OF MALIGNANT TUMORS

BY C M FENN, M D,

OF SAN DIEGO CAL

Prior to the revelations of the microscope, morbid growths, with few exceptions were looked upon as local manifestations of some blood dyscrasia They were known to be environed by a zone of infiltration or degeneration, of varying area, and the question of recurrence after an operation was supposed to depend largely upon the extent of the incisions The desire, however, to preserve symmetry, especially if about the face, and to hasten cicatrisation, frequently induced the surgeon to circumscribe his operative procedures, relying subsequently upon antiseptic applications to sterilize flaps and adjacent tissues Unfortunately, it was seldom possible thus to reach the extreme boundaries of the disease, hidden as they were to sight, and the materies morbi, with lymphatics and blood-vessels as avenues (?), quickly invaded other tissues and viscera, or the increased supply of nutrient material, in the absence of the central mass, soon precipitated a recurrence at the original site This process was all the more rapid after attempted extirpation by pastes and caustic lotions Consequently the impression prevailed that surgical interference merely postponed the fatal denouement

Cellular pathology, however, has modified some of these theories, while confirming others It has taught us, I think, that tumors, excepting, perhaps, the essentially cancerous ones, are for the most part of local origin, whether homologous or heterologous as to the tissue from which they arise, that the drier ones are seldom recurrent, and that when metastotosis and recurrence take place, it is through the medium of morbid juices, which invade connective and other loose tissues, and set up foci of disease in other portions of the economy These later investigations, in my opinion, should encourage the surgeon to attempt at least the radical extirpation of all kinds of tumors, though custom and classification may have placed some of them among the "*noli me tangere*" class

While yet a student, some twenty years ago, it was my privilege to assist in the removal of a great many epitheliomatous and other abnormal growths, and the rapidity with which some of them recurred impressed me most forcibly at the time In many instances plastic operations were successfully undertaken to conceal deformity and promote cicatrisation, but at a later period these only added fuel to the flames In later years, having adopted the non-systemic theory, and recalling the well-known antagonism of citric acid to diseased tissue, while comparatively innocuous to healthy cells, I devised a method for the extirpation of doubtful and malignant tumors which I shall be glad to see thoroughly tested It consists, as will be noted, in an attempt to segregate the degenerated zone before using the scalpel

The notes of a few cases, of dates sufficiently remote to justify conclusion, will best illustrate the process

Col H T C, aged 48, of undoubtedly cancerous antecedents, his grandfather and father having succumbed to malignant disease of the face, had been appealing to thirty-third triturations for the removal of a suspicious tumor situated upon the left ala of the nose Notwithstanding the *attenuations*, the disease had rapidly extended down the side of the nose until a large segment of it rested upon the cheek Its track, fully an inch in length, and more than six lines in width, resembled the cicatrix of lupus exedens When first examined by the writer the tumor, now larger than a filbert, had a sessile attachment, an encrusted summit, and, in addition to an indurated margin, was evidently exceedingly vascular The elderly gentleman, remembering the fate of his ancestors, whose lives had scarcely been prolonged by the frequent operations to which they had been subjected, was naturally very despondent, and while decidedly opposed to the employment of caustics, he was correspondingly incredulous as to any permanent relief to be obtained from the knife

At the outset my armamentarium included an old hypodermic syringe and a saturated solution of citric acid. The needle was introduced deeply into the base of the growth, and about half a drachm of the solution injected. The entire mass became blanched at first, following which a few drops of the acid, mingled with blood, escaped at the surface. Beyond an insignificant tingling, the suffering was so slight that he voluntarily returned on the following day for a repetition of the operation. At intervals of two and five days the process was repeated, until a large zone had been thoroughly saturated with the solution. The size of the tumor gradually diminished until a nodule as large as a small pea alone remained. After the lapse of about three weeks this nucleus was raised upon a tenaculum and excised. The hæmorrhage, as had been anticipated, was quite profuse, but yielded readily to styptics and compression. During the entire period of manipulation, the local irritation seldom required restraining lotions. More than six years have already passed without any evidence of recurrence, and the colonel feels that he has made a fortunate escape.

A second case occurred in the person of a middle-aged matron, who also gave a history of a cancerous diathesis in her family. The tumor was situated between the eyes, and was slowly encroaching upon each of them. Immediate excision could not have been undertaken without leaving a most unsightly deformity. Subcutaneous injections of a similar kind were therefore used, the needle point being directed at times toward the centre of the mass, and, again, outwardly, in various directions. A diminution of the induration was soon perceptible to the touch at the periphery of the zone, and continued until an elliptical incision, having a horizontal diameter of not more than twelve lines, included the entire growth. Three years have now elapsed without a return of the disease.

Still another illustration of the vagaries of the cancer and the possibilities of this treatment may not be out of place here. A lady, of perhaps 40 years, stated that about two years previous to our interview, and without any assignable cause, a hard lump made its appearance, a little to the right of and below the right breast. It had been twice operated upon in a distant city, without removing the indurated mammary and axillary glands! After a brief interval of repose it had again come to the surface, and was now manifesting increased virulence. A fungoid mass, as large as the top of a tea-cup, occupied the original site, and was so painful that large doses or opiates only procured temporary relief. It was evident that the system was so saturated with the cancerous juices as to preclude further surgical interference. An operation promising even a temporary respite would have involved excision of the breast and axillary glands and an area of integument at least five inches in diameter. As in the other cases, citric acid was injected into the tumor and adjacent tissues, with the results that pain was mitigated, hæmorrhage somewhat restrained, besides other evidences of improvement. It was, of course, impossible to stay the progress of the malady by any course of treatment.

San Diego, Cal., July, 1885.

MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS

PRESERVATION OF ALKALOIDAL SOLUTIONS.—Much has been said and written on this subject of late, and many have been the suggestions. In the British Pharmacopœia most of the alkaloid solutions are ordered to be preserved with rectified spirit in certain proportions, the solution of sulphate of atropia being an exception. There cannot be much objection to the use of this preservative when the medicines are intended for internal use *per os,* but when required for dropping into the eye, ear, or other delicately lined part of the body, or for subcutaneous injection, the use of spirit then becomes objectionable because of the smarting pain produced. Liquor atropiæ, B. P., is a notable example, as also the hypodermic injection of morphia. In place of spirit we have many useful substitutes, or means of avoiding this particular difficulty: 1. The use of neutral solutions of the alkaloids with tartaric, salicylic, and other organic acids, 2. The addition of phenol, thymol, salicylic acid, boracic acid, and such antiseptic substances in minute quantities, 3. The use of camphor-water, glycerine, etc., as the solvent. With regard to the first method, tartrate of morphia may be found a very useful salt for subcutaneous use, as it is readily soluble in water, keeps fairly well, and causes less irritation than the acetic solution. The same applies equally to atropia solution, but it may be mentioned that each of these does not keep for very long periods without the usual fungous formation. The second method may be objected to because of the powerful nature of the substances named, but there need be no fear, because a very small quantity suffices. The salicylates of the alkaloids are known to keep fairly well in solution, even when exposed to the air, and their effect in such a combination is not impaired. Apomorphia solution may contain a trace of phenol to preserve it. Cocaine solutions are said to be useless after two weeks if not preserved by means of some such preparation as a saturated solution of salicylic acid, and very likely this may account for the failure experienced by some practitioners in obtaining the 'local anæsthesia" said to be produced so markedly by this recently much used article of materia medica. The third method may be employed with considerable advantage for solutions of atropia, and doubtless also for eseria, pilocarpia, duboisia and gelsemia, when they or their salts are easily soluble in this solvent. Glycerine dissolves some alkaloidal salts very readily, and when diluted with a little water, to thin the product a little, may serve well for hypodermic injection, the pain produced sometimes by the glycerine, especially when used hypodermically, being greatly mollified by the addition of the water. Another method recently recommended by Dr. Macnaughton Jones for the preservation of these solutions is based upon the supposition that light aids in bringing about these changes. He proposes the use of a glass bottle colored blue or yellow, and provided with a vulcanite air-tight stopper, flanged with india rubber, and having a little vulcanite pipette, surmounted by a small cap By inversion and warmth of the hand a drop or more may easily be obtained without waste of material (which may be expensive), and with the additional advantage that the alkaloidal solution keeps longer, as the air does not so readily exert its influence in introducing fungus spores —*Birmingham Medical Review*, May, 1885

MEDICINE

New Experimental and Clinical Researches upon Bright's Disease —Prof Mariano Semmola deduces the following conclusions from the results of his latest experimental and clinical researches upon Bright's disease

1 Albumen can traverse the renal tissue without any previous alteration in the histological elements of the kidney, and without leaving any trace of its passage

2 If the passage of albumen be persistent, the first effect is hyperæmia with intraglomerular and intratubular hæmorrhage, and the capsule is distended in a mass after boiling, and sometimes is simply raised and separated from the glomerulus by an empty space There is also observed considerable migration of leucocytes without any alteration of the epithelium The urine contains hyaline cylinders These are the first results of an inflammatory action in relation with the functional activity of the kidney

3 If the functional process persist beyond even eight or ten days, especially with the injection of albumen in the proportion of one gramme for every thousand grammes of the animal's weight, the invading process is attended by a mild inflammatory action, in addition to a turbid swelling of the epithelium of the tubules, fatty degeneration, and thickening of the intratubular connective tissue

This proves that the functional activity, which the kidney must sustain in the gradual and prolonged elimination of unassimilable albumen, is apt to provoke successively in different parts of the organ an inflammatory process, which, commencing in simple hyperæmia, may result finally in the establishment of interstitial nephritis Prof Semmola is convinced by repeating the experiments and injecting very minute quantities of albumen, in order to have the experiments well under control and preserve the life of the dog for seven or eight months, that they will result in producing the last phases of the large white kidney—that is to say, the atrophic kidney

4 The histological alterations in the kidney persist for some time after the injection of the albumen without producing a continuation of albuminuria

5 Along with the elimination of albumen with the urine is also observed *albuminocholia*, that is to say, the elimination of a certain quantity of albumen with the bile

In relation with the above experiments, Prof Semmola proposes to continue his researches on the pathology of Bright's disease with the following experiments to determine

1 The comparative influence upon renal elimination produced by the injection of albuminose, which is presumably more assimilable, such as serum of blood, albumino peptones, white of egg, and milk

2 The influence of albuminous injections upon the crasis of the blood, and upon the elimination of a quantity of albumen greater than that injected

3 The influence of albumen injections upon degree of activity in the combustion of nitrogenous matters and upon the production of urea

4 The influence of albuminose injections upon the dyscrasic condition of the blood, and their relations with the production of anasarca —*La Medicina Contemporanea*, June, 1885, *Med News*, Aug 1, 1885

The Transmission of Phthisis Between Man and Wife —Professor Potain has recently delivered a lecture on this subject, which is published in the *Revue de Medecine*, June 10, 1885, in which he gives some very interesting data His first case is that of a woman 40 years of age, who died of rapid tuberculosis She had no tuberculous antecedents, and enjoyed good health previous to her contracting the disease She was a housemaid, and married a man who died of lung trouble after being incapable of any work for three years During all of his sickness she had the sole care of him and the children, and three months after his death entered the hospital in a typhoid condition, dying in six days Auscultation of the chest gave evidences of congestive pneumonia, with generalized bronchitis, but the general symptoms were such as to indicate tuberculosis, which the autopsy confirmed

Potain reviews the subject of the old popular belief in the contagion of phthisis, as agreed to by Aristotle, Hippocrates, and Galen, and the laws in Italy, in the middle ages, which prescribed isolation for phthisical cases, then the progress of pathological anatomy gradually negatived this view until the researches of Laennec, Andral, and finally Virchow, did away entirely with the belief In 1865 Villemin, an army surgeon, from the frequency of tuberculosis among robust young men for the most part yet living in common, and from his experiments on the subject, was the first to declare that tuberculosis was an infectious, zymotic disease, from this date we come to Klebs, in 1877, noting bacteria in the sputa of phthisical subjects, and finally Koch's well-known demonstrations in 1882

Musgrave Clay, in his thesis (1879), gives 111 cases of contagion Prof Potain considers particularly the transmission between man and wife, and refers to Bernard, 1881, who gives the case of a young girl 18 years of age, of a family free from tuberculosis, who married a man in delicate health and had no children The man died phthisical in five years time Three months later his widow had her first attack of hæmoptysis, a cough followed, and she died the following year. Guérin (of Nantes) reported the case of a young man who became tuberculous at about the age of 21, at 27 he married a large, strong woman, without tuberculous antecedents, they had no children Five years later the wife died of phthisis Buder (of Haut-Rhin) gives a similar instance A merchant, born of a consumptive mother, who lost one brother from phthisis, married a young girl of 17, free from any tubercular heredity He died in 1871, and his wife in 1875 Three other cases are cited from as many authors where the wife communicates the affection to the husband, and one case where a phthisical husband, after losing a child from tuberculous meningitis, and transmitting his disease to his wife, dies of consumption His widow marries again, dies of tuberculosis, and her second husband, in his turn dies of tuberculosis, a sister of the wife, who took care of her, dies of the disease and her husband also dies of it The contagion is supposed to have been transmitted successively to all of these cases of previously healthy persons, free from tuberculous antecedents, by the first husband

That the transmission may occur in the absence of the pathological condition, a case taken from the Bulletin of the Clinical Society of London (Hermann Weber, 1874,) shows very strikingly A sailor of tuberculous stock, and who, during adolescence, suffered from hæmoptysis, believed himself cured and married at the age of 27 His wife died after her third confinement A year later he re-married, his second wife died within a year a third died eight months after her second confinement, a fourth died nine months after her first confinement During the whole of this time the man appeared to be in good health, only coughing a little and expectorating a few mucous pellets on rising in the morning A few years later he died tuberculous

In most of the cases cited the women who contracted phthisis by contagion had borne children, in fact pregnancy is a debilitating cause which predisposes to tubercular infection But the transmission can take place without the intervention of pregnancy Musgrave Clay gives seven cases of this character

Cases are also given in this paper to show the transmission of phthisis among others than those who are married, and where there has been no nocturnal cohabitation It would seem, also, as if, in certain cases, that the tuberculous infection took possession of the house itself, thus perpetuating itself M de Lamare (1859) cites three cases of deaths of occupants, who lived necessarily in the same furnished apartment where a death occurred from phthisis, neither the furniture nor hangings being disturbed These three occupants were in no way predisposed to tuberculosis by their antecedents, their constitutions, or their modes of life The house having been refurnished no more cases occurred

The phthisis of monasteries, of convents, in the army, and in crowded cities, receives in turn due consideration But Potain lays special stress upon the danger of contagion in hospitals Among the cases which he cites is one from Bergeret, of a soldier whose antecedents were exceptionally good, and who, entering the hospital for some slight affection, was placed between the beds of two cases of consumption He became phthisical, and, returning to his family, contaminated successively his mother, two brothers, his father, a neighbor and her husband

As to the mode of transmission, he thinks there is no proof to incriminate the sweat, or the expired air, but that it is due to the inhaling of the dust of the dried sputa

SURGERY

A WORSTED TRUSS FOR INFANTS —MR LUND, in his second lecture, recently delivered at the Royal College of Surgeons, referred to a form of truss which is free from many of the disadvantages inseparable from the usual form of instrument when applied to a very young patient He said the truss, or the mechanical appliance which he should specially recommend for the relief of inguinal hernia in the infant, is certainly the worsted truss, a mode of treatment little known, he believed, but yet very simple and effective It is described in *Ranking's Abstract* (vol ix, p 131) He had used it in several cases where he had been consulted on the subject of the early appearance of inguinal hernia in young infants A skein of worsted, known as "Berlin wool," tied together, is applied around the pelvis and across the front of the abdomen One end or loop of the worsted is placed directly over the outer abdominal ring through which the protrusion of the hernia is likely to take place, or, if the hernia has already become scrotal, it must be first reduced, and pressure made over the spot, if the child should cry or struggle much The folded worsted is passed horizontally across the abdomen, just above the line of the crest of the pubes, to the opposite side, round the hip, behind the pelvis, and over the hip of the side of the hernia The folded end is then passed through the loop of the skein, and will here form a knot or bulged portion, which must be carefully adjusted, so as to lie against the hernial opening, and, being carried down the upper part of the thigh, between it and the scrotum, if it be a male child, it is brought round the external side of the thigh, near to the top of the great trochanter, and there tied or fixed with a safety pin to the band of worsted already round the pelvis With a little care, this arrangement of the worsted may be used as an excellent defence against the distension of the weak inguinal canal, and the descent of a hernia into the scrotum It is not powerful enough, nor could it easily be kept in position, when the child is old enough to run about, but on the principle that prevention is better than cure, it is a means of relief to which we can have recourse at a very early date, certainly before we could expose the infant to the torture of an ordinary hernia truss, however weak the spring might be It has this advantage, that the infant can be washed with the truss still in its place, a fresh one can be then applied, and the old one cleansed and used again —*British Medical Journal*, June 13, 1885

THE RADICAL CURE OF CANCER OF THE RECTUM —MAURICE POLLOSSON, in an article on this subject in *La Lyon Médicale*, proposes to operate for the radical cure of cancer of the rectum by first performing colotomy, and then making a secondary operation for extirpating the cancer The preliminary operation renders the extirpation of the neoplasm more easy and less subject to subsequent complications Polosson has tested this method in one case, making the artificial anus in the iliac region This case recovered —*Revue des Sciences Méd*, July, 1885

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM IN ADVANCE	$5.00
SINGLE COPIES	10 CENTS

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned. When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters.

Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 65 RANDOLPH STREET
CHICAGO, ILLINOIS.

SATURDAY, AUGUST 22, 1885.

MORE SIGNS OF PROGRESS

The leading editorial in the *Medical News* for the 15th inst. contains the following: "The action of the Original Committee—of the American Medical Association—and of the New Committee is now generally understood, and there does not seem to be much use in further comment and criticism upon what is past. The important question now is as to the future. Is there any way by which the impending disgrace can be averted? If there is, it must be such as will induce those who have withdrawn from the organization to return and co-operate heartily."

If it is true that the *News* and its limited number of eminent friends in Philadelphia, who so hastily undertook to obstruct the work of organizing the International Congress are beginning to realize their position in direct alliance with a faction in New York, whose well known organs, the *Medical Record* and *New York Medical Journal*, have been losing no opportunity to heap obloquy upon the American Association for years, as an unnatural and uncomfortable one, it is not difficult for them to find a way out of it if they do not delay too long. If they want the Code question dropped entirely, they have only to cease agitating it, and sever their official alliance with those who openly repudiate it. None know better than the *News* and its eminent friends that, so soon as the general officers of the Preliminary Organization of the Congress and the officers of the several Sections are appointed, and the appointees accept, those general officers and the Chairmen of the Sections constitute the Executive Committee of the Congress, and the whole management of its scientific interests passes into their hands, leaving but little further for the Committee of Arrangements to do. And inasmuch as the Committee of Arrangements, at its regular meeting in Chicago, actually re-nominated the same President of the Congress, twelve out of sixteen of the same Chairmen of Sections, while the four new Chairmen of Sections and the new appointee for Secretary-General were every one of them men of the highest standing, and well known both in Europe and America, it is apparent to every candid mind that no reasonable objection could be made to the proposed leadership and *personnel* of the Organization.

In regard to the Rules for regulating the conditions of membership and the working of the Congress, it is well known that all the Rules relating to the latter were adopted by the New Committee without change. The only change of importance proposed was in Rule 1, which related to the terms of membership. The change in this rule proposed by the Committee was not satisfactory, and it is still open for further consideration and adjustment at the coming meeting of the Committee on the 3d of September. In our issue of August 8th, we gave two propositions that had been suggested for regulating the American Membership of the Congress, both of which were amply liberal—the one retaining the representative principle, and applying it to all the national special organizations, as well as to the National Association and the State and local societies in affiliation therewith, the other opening the door of the Congress, so far as its scientific proceedings and interests are concerned, to all members of the regular profession who might choose to register and take their tickets of admission. If either of these propositions is satisfactory, let the *News* say so. Or, if it will be more satisfactory to all parties, and will be accepted as a basis of adjustment to have the Rule 1 read simply as follows: "The Congress shall be composed of members of the regular medical profession who shall have inscribed their names on the register, and taken out their tickets of admission," thus making the terms of membership alike to all, American and foreign, let the *News* and its friends indicate this, and the proposition will receive a fair consideration. They cannot longer maintain their dog-in-the manger policy on purely personal considerations without passing into history as persistent obstructionists, who place their personal prejudices above the honor and welfare of the profession to which they belong.

The 3d of September is near at hand. If those members of the profession who so abruptly abandoned the honorable and responsible positions to which they had been assigned wish to retain those positions, and aid in maintaining the honor and interests of the profession of their country, let them move in that direction soon, or their places will be filled by others equally eminent, and the good work will move on without them. To talk of restoring the Original Committee of eight appointed by the Association at Washington, and enlarged by its own action, is simply childish. It is perfectly well known that the Original Committee appointed at Washington is now an integral part of the present Committee of Arrangements, and has no existence in any other capacity or connection. The enlargement of the Original Committee by the addition of a representa-from each State, and from the Medical Corps of the Army and Navy, instead of a less number selected from a few cities, neither lessens the efficiency nor detracts from the dignity of the Committee, as simply a Committee of Arrangements. And such Committee will proceed with its work in a true conservative liberal spirit, and will complete the preliminary organization of the Ninth International Congress on as liberal a basis, and under the official leadership of as eminent and learned men as the profession in America contains.

Our European brethren need have no fears of being met by codes or partisan questions on their arrival here. At the Copenhagen Congress they accepted an invitation to hold the next Congress at Washington in 1887, extended through a Committee appointed and commissioned by the American Medical Association, and in behalf of the profession of the United States. If they do not prematurely interfere, when the time comes they will meet with as liberal and cordial a reception, both from the representatives of the medical profession of these United States and from the highest officials of our National Government, as they have met in any of the Congresses heretofore held in Europe.

POST PHENOMENA OF DECAPITATION

Some time ago, Paul Bert suggested a series of experiments on recently decapitated persons, with the idea that by careful and immediate experimentation considerable light might be thrown on certain physiological problems. Physiologists in Paris have found it impossible to make these experiments on account of certain formalities which are thought to be necessary in that city when a criminal has been decapitated. MM. P. REGNARD and P. LOYE, however, have been recently, July 2, 1885, enabled to carry out the ideas of Bert to some extent in Troyes, the most careful preliminary arrangements having been previously made. Their report is to be found in *Le Progres Medicale*, of July 18.

When the condemned man was placed on the instrument he seemed to be in a state of syncope, the mouth and eyes were widely open, and he seemed quite insensible. At the very moment that the knife severed the head from the body a general contraction of the muscles of the face was easily seen, but the horrible facial distortion which then followed was probably due more to direct excitation than to a psychical phenomenon. Within less than a minute after the decapitation the cadaver was placed in a carriage. At this time the complete inertia of the body was quite inert, the face was composed, the features in repose, and the eyes and mouth closed. There were none of those irregular movements which many authors attribute to the bodies of decapitated persons, or which they report as occurring when certain of the lower animals are decapitated. Next the experimenters attempted to lift the body, when it was found to be in a state of complete contracture, both of the extensors and flexors, the whole body could be lifted by lifting the extremity of one limb, and it was impossible to flex the knees or thighs. The same was found to be true, to a certain extent, of the head. The eyelids, which were widely open when the knife fell, were now firmly closed, so much so that it was difficult to open them sufficiently to carry out a part of the experimentation. This state of general contracture lasted for two or three minutes (it being almost impossible to take the time with precision on account of the rolling of the carriage, which was moving very rapidly).

It has been asserted and denied that the reflexes persist after decapitation. In this case, after the cessation of the rigidity, the skin of the body was pinched and the soles of the feet were tickled without the least movement being provoked; the patellar reflex had completely disappeared. The surface of the eye was violently irritated without causing the least contraction of the lids or of the muscles of the face. Violent irritation of the cord at the point of section gave no results. The pupil, which was moderately dilated, contracted but very little on the approach of light. Thus, three minutes after decapitation, it was impossible to observe any spontaneous movement, or even a reflex, except that (very slight) of the pupil.

Having arrived at the hospital, where a room had been carefully prepared, a series of experiments was commenced on the actions of the pneumogastric nerve, the first being with reference to its action on pulmonary contractility. The experiments of Williams and Paul Bert, on dogs, show that the muscular fibres of Riessessen, disposed in a circular manner about the bronchi, are innervated by the vagi. But in the dog, it should be remembered, the pneumogastric is intimately connected with the sympathetic, so that it is very difficult to say with certainty to which of these two nerves is to be attributed the influence on the pulmonary muscles. In man, however, this connection does not exist, so that it was comparatively easy to solve this question. The pleuræ were opened so as to allow the air to enter freely, a differential water manometer was then introduced into the trachea, and firmly secured, and an induced current was then passed through the vagi. The liquid immediately commenced to ascend in the manometer, slowly at first, and followed by an equally slow descent after the current was broken. This was done thirty two minutes after decapitation; it showed that pulmonary contractility is due to the action of the pneumogastric nerves.

At sixty minutes, after opening the thorax, one pole of the battery was placed on the surface of the lung and the other on the trachea in the mediastinum, when the pulmonary tissue was directly irritated the fibres of Reissessen contracted, and the liquid slowly ascended in the manometer.

Forty-five minutes after decapitation the abdomen was opened: no spontaneous movements of the stomach or intestines were observed, nor were any caused by the contact of the air. On irritating the vagi there were immediate marked movements of the stomach and intestines, extending as far as the transverse colon. According to Longuet this motor action for the stomach is only produced when the stomach is full of food; but in this case the stomach was completely empty. The stomach was then opened, and the current applied to the vagi; almost immediately small drops of gastric juice began to appear over almost the whole surface of the gastric mucous membrane.

The final experiment was on the dorsal and palmar interossei, and lumbricales; it was found that their action is that which has already been assigned by Duchenne, of Boulogne.

It will be seen that these experiments were not only of great interest but of considerable physiological value. So long as decapitation is the mode of capital punishment in France, it seems that further experiments in this direction might be carried out.

THE TOXICITY OF NORMAL URINE.

The toxicity of normal urine has been a disputed question for a long period of time. The weight of evidence is on the affirmative side, although the immediate poisonous principles are not known. Urea, uric acid, kreatin, and the potassium salts have in turn been incriminated. Recent investigations, however, point to the existence of poisonous alkaloids in normal urine. M. CHAUTEMESSE has summarised the history of the subject, which is well abstracted in two leading articles, appearing in the *British Medical Journal*, June 6th and July 4th, 1885.

Alkaloids have been found in putrid albumens, bile and normal muscle-juice by Gautier and Pouchet. Brouardel and Boutmy, published in 1881, a distinguishing reaction between the vegetable alkaloids and the ptomaines. The alkaloids of putrefaction, in the presence of potassium ferricyanide and ferric chloride yield the Prussian blue coloration. In 1880, Pouchet found an alkaloidal substance in normal urine, which, in combination with hydrochloric acid, formed double salts with platinum, gold and mercury. Brouardel's discovery that "alkaloids exist in the bodies of living beings, which have been generated in the alimentary canal, and probably elaborated by the vegetable organisms there present acting as the agents in intestinal putrefactions," marks an important advance beyond the results of the labors of Selmi, Gautier, Pouchet and Boutmy. Part of these intestinal alkaloids are absorbed into the blood, further elaborated by the kidneys, and appear in the urine.

PROFESSOR BOUCHARD, at a recent meeting of the Société de Biologie, read an interesting and valuable paper on the toxic qualities of normal urine. In the light of the recent progress of physiological chemistry, briefly detailed in this paper, the results of Professor Bouchard's experiments are clearly intelligible. The fact of toxicity of the urine was established by the injection of specimens of urine into the veins of frogs and rabbits.

Following the injection of normal urine into the veins of a rabbit, Bouchard observed "contraction of pupils, slow respiration, muscular weakness, lowered temperature, abolition of reflexes, torpor," and death as the result of arrest of respiration. It is a well-known fact that 90 cubic centimètres of water for every kilogramme of its body-weight may be injected into the veins of an animal without the production of mechanical effects. In Bouchard's experiments, the quantity of fluid used was not the tenth of this amount, so that the effects were of a true toxic character.

Bouchard next attempted to determine the particular constituent, to which the poisonous character was due. Without entering into the details of the experiment, it was found that urea, uric acid, kreatin, and the potassium salts, alone and combined, "though undoubtedly poisonous, were not so in the small quantities contained in the urine injected. He concludes that there are numerous poisonous principles present, which do not reside in one, but in several of the urinary constituents." The poisonous principles are not volatile.

Very recently, Lépine and Guérin have demonstrated that these alkaloidal bodies are increased in various acute diseases. Thus in typhoid fever and pneumonia, the toxicity of the urine was greatly increased, while in the urine of diabetes, catarrhal jaundice, and cirrhosis with jaundice no increase of toxicity was observed.

JOURNALISTIC CHANGES.—We have received the two first numbers of Daniel's *Texas Medical Journal*, a new monthly of 50 or 60 pages, earnestly devoted to the educational, scientific and practical interests of the medical profession in the Lone Star State. It is published in good style, on good paper and fair type, at Austin, Texas. It is both edited and published by F. E. Daniel, M. D., a man of great activity, independence of thought, and a peculiarity of expression that will always attract attention. These copies also indicate the active support of a fair number of contributors, and we trust the enterprise of our friend Daniel will be characterized by long life and abundant prosperity.

BACK NUMBERS WANTED.—Copies of Numbers 2, 6 and 16, of Vol. 1, Numbers 22, 24 and 25, of Vol. 2, Numbers 2 and 4, of Vol. 3, and Number 2, of Vol. 4, are wanted to complete files of this journal for binding. We will pay 50 cents a copy for as many of the Numbers just mentioned as may be sent to this office in a good condition, during the next 30 days.

SPECIAL ARTICLE

THE BATTLE OF CELLS AND BACTERIA

BY RUDOLPH VIRCHOW

[Translated for the JOURNAL from *Virchow's Archiv*, Bd. CI, Hft. 1, by A. S. von Mansfelde, M. D., of Ashland, Neb., assisted by Alice E. Huff, M. D., of Ashland, Neb.]

Many years ago, as is well known, I formulated the proposition "Omnis cellula a cellula," as a substitute for that of Harvey, "Omne vivum ex ovo." The cellular theory of life immediately pointed to a cellular theory of disease, and my conclusions were the result of comparing the lowest plants and animals with the cells of higher plants and animals. Just at the time when I arrived at the theory of evolution, from the epigenetic conception of various pathological processes, when I put the parental propagation of cells in place of plastic substances and deposits, so called unicellular plants and animals occupied the foreground of attention in botany and zoology. Much in the conception of these structures has since been changed; yet the progress of knowledge has given new and stronger proofs that the vital qualities and energies of individual cells must be compared with the vital qualities of the lowest plants and animals. The natural consequence of such a conception is the necessity of a certain *individualization of the cells*. If even the lowest plant, the lowest animal has a kind of personality, then this same quality must necessarily belong to the individual living cell of a composite organism. I will not deny that this form of contemplation may give rise to mistake, and that there is danger of deducing therefrom a new form of vitalistic mysticism. But from mistake and exaggeration no human thought is safe. A cell which nourishes itself, which, as is now said, digests, which moves, which excretes, is certainly an individual, a working, active being, and its activities are not simply products of external influences, but the products of internal processes, closely related to the continuation of life.

As much is accomplished by the least active animal cell, many accomplish much more, and therefore we must accept these elemental organisms as individualities. Such a conception is not mysticism, but pure realism. Singularly enough persons have existed who, from time to time, according as new phases in the activities of cells became known, or occupied a prominent place, with these new facts assumed the extinction of the cellular theory. Even such extraordinarily instructive and demonstrative facts as the automatic movement and the migration of cells have been conceived as invasions into the domain of the cellular theory, when instead of this, they most brilliantly confirm it. It is entirely different with the external influences which the cells experience. It is not to be denied that etiology as compared with phenomenology has a long time been somewhat neglected. This became the more apparent when the parasitic micro organisms in constantly increasing numbers, entered into pathological consideration. Perhaps the majority of contemporaries were dazzled by it. It seemed as though they held the whole of the old wisdom as worthless. One can understand this conception even if he does not subscribe to it. But it may be well to give an explanation of how it came about that the importance even of those micro organisms which were known was not always immediately realized. What the conception of these things was a generation ago I have shown in my article on parasitic plants in my text book of "Special Pathology and Therapy" (Erlangen, 1854, vol. 1, p. 355). Since Bassi, in 1835, recognized the muscardine disease of silk worms, Schœnlein in 1839, the fungus of favus, and Julius Vogel, in 1841, the "soor" fungus, the conception that parasitic plants could give rise to specific diseases in the body has become a familiar one. Different pathologists have immediately, from the rather scanty facts, devised a far-reaching theory of parasitic diseases. I can affirm that a prejudice against such a presumption did not exist, and in this connection I may say that I at that time published a series of, in my opinion, very careful observations on Pneumo and Onycho-mycosis (*Virchow's Archiv*, 1856, Bd. ix, page 557, plate iv). At the commencement of this article I gave expression to the reasons why, in the 15 years since Schœnlein and Vogel, almost no progress had been made. "The astonishing slowness with which useful knowledge concerning these things is gained, in spite of the large number of investigators, is in the most part explained by the great difficulty which is experienced in settling the natural history of these plants, about which even the professional botanists have but very limited knowledge, and of which very incomplete descriptions and delineations exist. Such an investigation demands, therefore, a very greatly extended labor, and the result is very much less profitable than the cultivation of any other subject in pathology. Meanwhile we meet here a special difficulty." (Compare *Virchow's Archiv*, 1880, Bd. xxxix, page 206.) So far as mould and yeast fungi are concerned, the natural history of these parasites, at least the general features, were known. Yet the whole province of those plants latterly classed under the name of schizomycetes, was not only very uncertain, but its conception had undergone such great changes that almost every one turned away from it with aversion. Ehrenberg had only a short time before described these formations as animals, and had classed them with the infusoria. Then it was discovered that all the detailed description of the finer organization of these forms by the great microscopist were erroneous, and for not a few of them it became possible to demonstrate their vegetable character. But the microscopes of that period were very imperfect, pure cultures did not succeed, the modern staining fluids were, as is conceivable, unknown, since the material for the staining of many of them, was not even discovered. Finally such little growths were found in all manner of impure and putrefying substances, giving rise to the popular notion, that every drop of water, every bubble of air contained them by the thousand. Is it a wonder that these things were overlooked, even if they were found?

In support of this I may mention my own position in regard to cholera. On July 31, and August 1, 1848, occurred the first cases of that epidemic which afterward became widespread. The first case was fatal. I found in the intestines numberless vibriones, yet in the blood no foreign elements such as vibriones. In the second case I examined the evacuations, and demonstrated the presence of vibriones and ciliated monads (*Medical Reform*, 1848, No. 5, page 28. *Gesammelten Abhandlungen aus dem Gebiete der offentl. Medicin und Seuchenlehre*, page 128). Then I discussed also the question of the significance of infusoria and remarked that "I took no stock in the diseases caused by infusoria, and as regards cholera, such forms were found only in the evacuations and were in no way characteristic of cholera, but simply indexes to the commencement of putrefaction. The synchronous development of carbonate of ammonia and the roseate hue formed in the masses on the addition of nitric acid demonstrated this" (*Medical Reform*, No. 15, *Ges. Abhandl.*, page 137). An especial support seemed to me to exist for this conception in the fact that the contents of the intestines in the upper part gave an acid reaction, and in the lower part were alkaline, "and here were found the infusoria of putrefaction and not above" (*Medical Reform*, 1849, *Ges. Abhandl.*, page 148). Whether these "infusoria" were identical with the comma bacillis I cannot determine; presumably some of them were present. But an accurate analysis was out of the question at that time, and as is taught by the lines quoted, out of the direction of the theoretical considerations. But the point was remembered, and when, 20 years later, a recent case of arsenical poisoning with choleraic symptoms presented itself, I examined it with reference to this very point. I hoped to find in the nature of the contents of the intestines the means of diagnosis. But the rice water contained in the large intestines showed upon microscopical examination the same composition as in cholera, especially innumerable masses of the smallest bacteria and vibriones, which were identical with the cholera fungi described by Klob and others (*Virchow's Archiv*, 1869, Bd. xlvii, page 525). Thus I remained for another decennium of the same opinion, only emphasizing that what was called in 1848 vibriones, is now described as micrococci or as sphero bacteria, and I said: "Even now I am not convinced of the specific nature of these micro organisms" (*Ges. Abhandl.*, page 513). I refer, not to become tedious, to other parts of my "Ges. Abhandl. aus dem Gebiete der off. Medicin," Bd. ii, page 185, and particularly page 272. (Compare *Virchow's Archiv*, 1868, Bd. xlv, page 280.) In this place I said: "With the smallness of the formations under consideration, and the impossibility of distinguishing them in the present state of our knowledge—nevertheless I cannot subdue the hope that experimental investigations may yet succeed in finding a specific vibrio of cholera. I will therefore not reject the thought of the existence of a cholera fungus. *One may conceive, therefore, that the cholera miasma consists of a fungus ferment for which there are many reasons.* Yet this is still only a bare analogy, a possibility but no confirmed fact." The latest history of the comma bacilli has taught how difficult it is, even with the improved instruments and methods of to-day, to arrive at a definite conclusion, and I think every impartial observer will find it justifiable, when I continue to advise circumspection in the hypothetic extension of the parasitic doctrine. This variation in the inclination to employ this doctrine as the explanation of all infectious diseases dates from the discovery of the bacilli of anthrax by Pollender, Davaine and Brauell (1854-57), the cocci of variola and vaccinia by Keber (1868), and the spirilla of relapsing fever by my former assistant, Obermeier (1873), as I have more precisely explained in my lecture on the progress of military medicine (*Ges. Abh.*, Bd. ii, p. 175, and in *Virchow's Archiv*, 1880, Bd.

lxxix, page 207) With these the first valid examples of defined diseases, caused by schyomycetes, and especially the presence of the disease causing micro organisms in the blood, were furnished, and it can be at once admitted that through these facts a sure and substantial foundation was built for the hitherto very vague hypothesis

There is still very much to be done For a large number, and, indeed, the most frequent, of the infective and contagious diseases, demonstration of the presence of micro organisms is yet wanting, though they are suspected to exist Yet this demonstration is only the first step upon the difficult road towards a knowledge of the disease processes Many pretend not to be aware that by the bare demonstration of a bacterium or a micrococcus little is gained Yet neither pathology nor therapy can be satisfied with it What is the improvement in the treatment of relapsing fever because the spirillum has been found? What influence has the discovery of micrococci in the lymph and the organs had upon the doctrine of vaccination for small-pox? Had we not the successes of Pasteur in the manufacture of diverse protective vaccinæ for different infectious diseases the only practical interest would centre in Listerism, and this, it must not be forgotten, owes its existence more to an ingenious divination than to a strictly purposive scientific investigation Nevertheless, micro organisms occupy the foreground of medical interest, they not only control the domain of thought, but also the dreams of many older and most young physicians The cells seem to be forgotten I cannot abstain from citing a few pungent sentences of a Paris journal, since they give a very spirited expression of this frame of mind "The cellular republic has had its existence Our body is no more a republic of cells, living each one its proper life, often dangerous, through their peculiar characteristics, and through their invading tendencies, to the body which contains them

"This cherished republic was created by the German, Professor Virchow Dethroned is your cellular republic great master She also was accused by pathologic 'tonkinades' (and she yielded to the verdict of the parasitic fashion, 'Down with the cells!') These (the parasites) live their independent existences, infinitely small, yet prolific, with race characteristics, living within the different centres, one off the other They come from the outside, they penetrate almost on a sudden into the organism, ravaging by the right of invasion and of conquest, without regard for parentage or alliance" —*Le Journal Medical Quotidien*, 1885, No 61

The cells were indeed forgotten for a time Many a one who, through the medium of his Abbé Zeiss apparatus, had made the cells invisible, and who perceived nothing but the colored microbes, may have really believed that the cells needed no further consideration But they are nevertheless still existing, and to speak frankly, are, after all, the essential part But their turn will come again when medical men shall have, in some manner, filled the gaps which are still existing in the knowledge of botany

Perhaps this is a little too generally expressed, for, in fact, the same thing is repeated with every new parasitical cause of disease First, the discovery of the parasite , then the investigation of its natural history, then the question, How does it cause the disease? It is only in this third stage of the affair, strictly speaking that we return to pathology, and truly to the same pathology which had obtained previously Nowhere is this so clearly expressed as in the history of phthisis When Koch discovered the tubercle bacillus, many pretended that now all the toilsome labors of the past had become unnecessary —one kind of bacillus, therefore one form of phthisis Tuberculosis of the lungs is identical with cheesy hepatization, glandular tuberculosis with scrofula, etc This beautiful unity has not lasted very long Phthisis of the lungs has remained what it was—a complete process, commencing in very different ways, sometimes in the mucous membrane of the air passages, sometimes in the interior of the alveoli, and sometimes in the parenchyma of the lungs, and giving rise to entirely different products, sometimes simply inflammatory, and then specifically tuberculous ones, and whoever wants to comprehend this complex process must have learned something more than how to stain bacilli The bacillus has advanced the comprehension of the process so little, that one has returned again, after a very short time, to the investigation of predisposition and immunity I was engaged in this investigation a generation ago At the meeting of the Wurzburg Physico medical Society, on February 14, 1852 (*Wurzb Ver* , Bd iii, page 98), I spoke of "the difference between phthisis and tuberculosis," and explained amply the phthisical predisposition This essay is, naturally, long since forgotten, but it is curious to observe how, after the first bacillar excitement, the necessity of the case so quickly again has forced investigation into the same channel which formerly seemed to be the correct one

In this place I desire to show that the knowledge of the bacillus, however necessary it may be for the comprehension of the origin of a disease process, nevertheless does not explain the process itself, nor does it make its special investigation unnecessary This is still more evident in lepra The demonstration of the bacillus lepræ has excluded a whole series of other possible explanations, but a positive progress in diagnosis, prognosis and cure of lepra will not be made until our knowledge of the local affections of lepra has been enriched with something more than the addition of a few bacilli to the lepra cells This relation, to explain which is really the main object of the specific pathological, or more generally expressed, of the medical investigation of these forms of disease, I may call *the battle of the cells with parasitic micro organisms*, or shorter but not quite as correct, with bacteria Apparently two living organisms face one another, the microscopic cells, the vital elements of the body, on the one hand, the still smaller fungi, the lowest plants, on the other Each have their own life, therefore also their own activity and their own strength Which of them is the assailant? What is the manner of its assault? Does the one or the other resist, and through what qualities? Which of them is destroyed? These are questions which ought to be answered. That disease is a battle is an old saying. Even Schultzenstein formulated this by saying "Disease is a battle of life with death." At present we know little more of the character and activity of the cells than of those of the vegetable parasites. But the living reaction of the cells is studied better than the action of the parasites, and the scientific interest, therefore, will for the present lean entirely towards this subject. I defined this question more precisely in a lecture[1] before the Berlin Medical Society, on Feb. 8th, 1871 (*Berliner Klin. Wochenschr.*, 1871, No. 10.). Only this I wish to emphasize, that I distinguished between the effects of the foreign living body as such, and those created by its products, particularly the poisonous substances generated by it. On the other hand, the problem of the near future will be to take up, to a greater extent than has hitherto been done, the investigation of the living cells in regard to their power of resistance and the mechanism of their defense. A very promising commencement has been made by Dr. Metschnikoff in two papers (*Archiv*, 1884, Bd. xcvi, page 177, and Bd. xcvii, page 502), in which he described the reception of the parasites into the interior of the cells, and their further fate, particularly their digestion by the cells. Objections have been raised against this conception, which are entitled to attention. More particularly has the capacity for attack of the intruder as compared with the power of resistence of the cells not received merited attention. But the course taken is unquestionably the correct one. With commendable good judgment Dr. Metschnikoff has taken the initiatory step by the observation of small aquatic animals. They are studied most easily when their conditions of life, particularly their abode in the water, are least disturbed. The smallest sea animals, be they fully developed, or in their larval state, are the most convenient objects for this study, and it is to be hoped that much further study will be done in this direction.

[There exists a very strong tendency to undermine and discredit the cellular theory of body construction, and as a legitimate offspring of this, cellular pathology, so that the halt called by Professor Virchow seems very opportune to those who, like the translator, believe in this cellular theory, and applied to the utmost limit to the developmental theory, at that. It seems quite remarkable that many busy hands should already be employed in pulling down this beautiful and most useful structure of Schleiden, and Schwann, and Virchow, when a great number of the medical profession, and particularly on this continent, have not even grasped the cellular theory in its diverse applications, so that few are capable of following with full understanding the pros and cons of the question. This is substantiated again, as often before, by the paper of Dr. Elias Metschnikoff, of Odessa, to which Prof. Virchow refers. Though pregnant with the most important thoughts concerning both the cellular theory and the parasitic hypothesis, no journal in this country has as yet mentioned it (if so, it has eluded my search), though the first paper appeared in the *Archiv* in May, 1884. In these papers Dr. Metschnikoff describes his observations of a disease in the body of the Daphnia magna (Whirling dun), caused by the presence of a yeast fungus, which he names monospora bicuspidata. The fungus propagates itself by gemnation and spore formation. The latter, the spores, are contained one at a time in its ascus, and are double pointed, spindle shaped, hence the name of the plant. Metschnikoff has followed all the phases of the life history of this fungus in the body of the daphnia, from its germinal inception (spore) to its death, or that of its host. And the reader who follows him carefully in his lucid descriptions is forced to conclude that he presents him with a battle for the survival of the fittest,—in this instance the fungus on the one side, the phagocytes (eating cells) on the other, now the former, now the latter, triumphant. With the victory of the fungus, the animal perishes, with the triumph of the phagocytes (white blood corpuscles and amœboid cells of the connective tissue), the animal survives. So long as the daphnia, *i. e.*, its phagocytes, retain their vigor and only spores find their way into its tissues from its alimentary canal, the white corpuscles surround and take up the spores and *digest* them, *i. e.*, kill them. But when from any cause the fungus matures and commences to form conidia and spore bearing asci in the body of the daphnia, this can no longer resist its enemy and it invariably perishes.

"From this description one may perceive," says Dr. Metschnikoff, "that the infection and disease of our daphnias is a battle between living creatures, the fungi and phagocytes. The former present themselves to us as lowly organized unicellular plants, the latter, on the other hand, as the lowest tissue elements which present the greatest similarity to the simplest organisms (particularly amœbæ, rhizopodes, etc.). The phagocytes retaining their original character of intracellular food reception, act through it as the exterminators of the parasites, and appear, therefore, as representatives of the long-since known healing power of nature, which was first placed by Virchow into the tissue elements. The fundamental thought of the cellular theory of this master is fully exemplified in the history of this daphnia disease, since the main part is taken by the independent tissue elements."

He continues to form an analogy, and with good reason, between the occurrences in the disease of the daphnia and tuberculosis, and concludes "that also in tuberculosis, against the cause of the disease, a battle of the phagocytes rages, through which the organism often for a long time resists, and, in some instances, conquers. In regard to lepra he says: "The destruction of the bacilli in the interior of the cells, which accompanies the formation of vacuolæ, points plainly towards a digesting reaction of the lepra cell. The whole description of Neisser agrees with the demonstrable side of the phenomena of intra cellular digestion as has been observed in infusoria, rhizopoda and the cells of metozoa" Finally he says "It is known that pus corpuscles, after the retention for some time of a body eaten by them, die, when they are taken up by another leucocyte, which devours both dead corpuscle and foreign body"

---

[1] I refer those who are interested *in this subject* to that lecture which was printed in my Gessammelten Abhandlungen aus dem Gebiete der offentlichen Medicin."

One suggestion is particularly worthy of consideration he supposes that the successful battle of the phagocytes with the vaccination virus—a brood of weaklings prepares these scavengers of the body, the *vis medicatrix naturæ* of antiquity—to do battle with the vigorous bacilli of anthrax, variola, chicken-pox, etc, enemies not enfeebled by modern methods A rather new but not pleasing proof of the old maxim, "that practice makes perfect" The phagocytes first attack the weak bacilli of the vaccination fluids and finally war with the genuine and vigorous plants —often, but not always with success Now this question of the cause of disease by parasitic plants must, of necessity, remain a very vague affair, as long as prominent features, concerning not the parasites, but the diseased person or organ, are entirely overlooked For example The modified card, issued by the committee on collective investigation of disease, within reach of Virchow himself, perpetrates the following

Tuberculosis pulmonum —To the questions about 1, Heredity, 2, Contagiousness, 3, Cure and 4, *Development from pneumonia*" Under this fourth caption we read

"4 To the development of *phthisis* from genuine pneumonia.

(c) When developed the first symptoms of *tuberculosis*, and what were they?"

What does the committee mean by this kaleidoscopic throwing together of terms? Do they pretend to say, and in the face of our overwhelming clinical data, that tuberculosis pulmonum and phthisis pulmonum are identical terms and denote identical processes? Do they, in all seriousness, ask whether tuberculosis pulmonum ever develops from inflammation of the lung? If so, let them settle this question first before they go any farther To those who have *studied* the writings of Virchow, Rindfleish and others, these things have become convictions—we know that it is out of the nature of things for idiopathic (croupous) pneumonia, for such is here mentioned, to change into or have developed from it—tuberculosis Perhaps the micrococci of Friedländer change in Germany into the bacilli of Koch when required! Have not clinicians of some experience seen cases of phthisis pulmonum, *post mortem*, where with the greatest care and search no tubercles could be detected, nor during life bacilli of Koch in the sputa—could any stretch of the imagination call such a case one of tuberculosis?

Tuberculosis may be grafted on a lung, sick with catarrhal or croupous pneumonia, and indeed this seems the more probable from the researches of Dr Metschnikoff, which also partially explain why catarrhal should be more likely to be followed by tuberculosis than the other forms of pneumonia Of course I am not speaking of that form of so called catarrhal pneumonia which should properly be called scrofulous, caseous or tubercular pneumonia But this condition of things is far from being identical with the development of an infective disease from a purely inflammatory process Again, if the inflammatory process is followed by destruction and removal of lung tissue, resulting in cavities, thus presenting the clinical picture of phthisis pulmonum, it is not related to tuberculosis, except as tuberculosis is grafted on the process, either on the initiatory one, the inflammatory, or the phthisical, the destructive terminal one This must always take place by infection, auto infection or otherwise with the bacillus or poison of tuberculosis A little more histology—a little more cellular pathology—a great deal more work like that of Dr Metschnikoff, and a little less of confusion of terms and processes, and our work will be more scientific and profitable TRANSLATOR]

STATE MEDICINE.

THE ILLINOIS ANATOMY ACT

The following important law was passed by the Illinois Legislature during its recent session

SECTION 1 WHO MAY DELIVER AND WHAT BODIES MAY BE DELIVERED FOR SCIENTIFIC STUDY, ETC *Be it enacted by the People of the State of Illinois, represented in the General Assembly* That the superintendents of penitentiaries, houses of correction and bridewells, wardens of hospitals, insane asylums and poor houses, coroners, sheriffs, jailors, city and county undertakers, and all other State, county, town and city officers, in whose custody the body of any deceased persons, required to be buried at public expense, shall be, shall give permission to any physician or surgeon, (a licentiate of the State board of health), or any medical college or school public or private, of any city, town or county, upon his or their request therefore to receive and remove free of charge or expense, after having given proper notice to relatives or guardians of the deceased, the bodies of such deceased persons to be buried at public expense, to be by him or them used within the State, for advancement of medical science, preference being given to medical colleges or schools, public or private, said bodies to be distributed to and among the same, equitably, the number assigned to each, being in proportion to the students of each college or school *Provided however*, that if any person claiming to be, and satisfying the proper authorities that he is of kindred to the deceased, shall ask to have the body for burial, it shall be surrendered for interment *And provided further*, that any medical college or school public and private, or any officers of the same, that shall receive the bodies of deceased persons for the purpose of scientific study, under the provisions of this act, shall furnish the same to students of medicine and surgery, who may be under their instruction, at a price not exceeding the sum of five dollars for each and every such deceased body so furnished

SEC 2 HOW BODY TO BE USED—BOND TO BE GIVEN, ETC Any physician or surgeon, (a licentiate of the Illinois State Board of Health) or any medical college or school, public or private, before receiving any dead body or bodies, shall give to the proper authority, surrendering the same to him or them, a sufficient bond that said body or bodies shall be used only for the promotion of medical science within this State, and whoever shall use said body or bodies for any other purpose, or shall remove the same beyond the limits of this State, and whosoever shall sell or buy any such body or bodies or shall traffic in the same, shall be deemed guilty of a misdemeanor, and shall, on conviction, be fined in a sum of not less than one hundred dollars, and be imprisoned in the county jail for a term not less than thirty days nor more than one year, the fine accruing from such conviction, to be paid into the school fund of the county where the offense shall have been committed

Sec 3 Penalty for officer refusing to deliver body, etc Any officer refusing to deliver the remains or body of any deceased person when demanded in accordance with the provisions of this act, shall pay a penalty of not less than fifty dollars, nor more than one hundred dollars for the first offense, and for the second offense, a penalty of not less than one hundred dollars, nor more than five hundred dollars, and for a third offense, or any offense thereafter, the penalty of not less than five hundred dollars, or to be imprisoned in the county jail not less than six nor more than twelve months, or both at the discretion of the court, such penalties to be sued for by the health department, as the case may be

Sec 4 Duty of professors, etc, to bury bodies, etc It shall be the duty of preceptors, professors and teachers, and all officers of medical colleges or schools, public or private, who shall receive any dead body or bodies, in pursuance of the provisions of this act, decently to bury, in some public cemetery, or to cremate the same in a furnace properly constructed for that purpose, the remains of all bodies, after they shall have answered the purpose of study aforesaid, and for any neglect or violations of the provisions of this act, the party or parties so neglecting, shall on conviction, forfeit or pay a penalty of not less than fifty dollars, nor more than one hundred dollars, or to be imprisoned in the county jail not less than six nor more than twelve months, or both, at the discretion of the court, such penalties to be sued for by school officers, or any person interested therein, for the benefit of the school fund of the county in which the offense shall have been committed

Sec 5 Repeal An act entitled "An act to promote the science of medicine and surgery in the State of Illinois," approved February 16, 1874, in force July 1, 1874, is hereby repealed

FOREIGN CORRESPONDENCE

LETTER FROM BERLIN

(FROM OUR OWN CORRESPONDENT)

Rag Disinfection—Laparotomy for Rupture of the Uterus—Hay Bacillus and Bacillus Anthracis

Some weeks ago, without the least knowledge on my part that such an appointment was contemplated, and without any definite conception of the regulations of the Treasury Department governing the exportation from Germany to the United States of old rags, I was requested by the Consul-General to assume the duties of inspector. The circular issued by the Hon H McCulloch, Dec 22, 1884, prescribed the following processes, either of which will be considered a satisfactory method of disinfection of old rags, and will entitle them to entry and to be landed in the United States upon the usual permit of the local health officer, viz

1 Boiling in water for two hours under a pressure of fifty pounds per square inch 2 Boiling in water for four hours without pressure 3 Subjection to the action of confined sulphurous acid gas for six hours, burning one and a half or two pounds of roll brimstone in each 1,000 cubic feet of space, with the rags well scattered upon racks 4 Disinfection in the bale by the means of perforated screws or tubes, through which sulphur dioxide, or super heated steam at a temperature of not less than 330° F, shall be forced under a pressure of four atmospheres for such a period as is sufficient to insure thorough disinfection

The chief baling and shipping stations in North Germany are Konigsberg, Dantzig, Stetten, Riesa, Berlin, Hanover, Harburg and Hamburg The chief firms controlling this business are Lewy Gebruder, of Konigsberg and Berlin, Lewy and Strich, of Konigsberg and Berlin, Gebruder Salomon, of Hanover and Harburg, and Wertheim, of Hamburg This latter gentleman is agent for Germany of a patent disinfecting arrangement erected in New York Harbor, which, so far, meets with little favor Merchants here will not ship rags to be disinfected in New York, because, among other reasons, of the greater expense, so the company endeavors to force patronage by untruthful statements of foreign inspection, or by sensational reports of the rapid advance of cholera The rags shipped from these ports are all North of Germany or Russian rags, quite clean and free from infection In their disinfection they lose their dust, which is a gain to hygiene, though a loss to the merchants, as it reduces the weight There has not been a case of cholera in this region of country for over eight years, and there have been but very few instances of malignant dysentery Every year, from North Germany alone, there are shipped to the United States about one hundred thousand bales of rags

The sulphur process is in favor here In Berlin, Hanover and Harburg I have made use of the following plan A large room in the warehouse is set apart as a disinfecting room In the centre is a well of fireproof stone resting on a floor of the same material about six feet square, the sides being four feet high In the middle is a large graphite pot for the sulphur, and the whole is covered over with an iron grating The windows and doors are all tightly closed The rags are scattered about on the floor and racks, and are kept in the fumes for five hours In the ceiling is a large ventilator, which is opened from the outside by a string and pulley

This is opened at the expiration of the disinfection In Konigsberg I utilized an old sugar house with a chimney 120 feet high There was one large room where the rags were scattered about, and a small room adjoining, in which a special furnace of brick was built for the burning of sulphur Four large tubes perforated the partition between the two rooms, through which the fumes of the sulphur are blown This is a very practical and safe arrangement The large chimney was used as a ventilator About seventy pounds of sulphur every day are consumed by each of the two firms exporting from Konigsberg Working full force, and keeping late hours, each firm in Konigsberg, if pressed, could disinfect and press nearly 300 bales per diem In this city more rags are baled and shipped than from any other port in Germany—perhaps from any other two cities The business here is almost entirely controlled by Levy Gebruder and Levy and Strich Berlin does but a small business, averaging, perhaps, forty bales per diem If the market were active, the same two firms, who also control the business here, could bale about 150 bales each per diem Since my appointment the Berlin firms have only disinfected about 2,700 bales, burning on the average fifty pounds of sulphur for each twenty or twenty-five bales, and disinfecting sometimes twice in the day In Hanover and Harburg the Gebruder Salomon have extensive facilities, and, if necessary, could bale in the two places about 350 to 500 bales per diem I have inspected about 700 bales from each of these cities

Now the question naturally arises—How is it possible for one inspector to give his personal attention to places so widely separated from each other? The answer is a simple one At no one city is the business constant It is always intermittent Little is done at Berlin, and that irregularly At Konigsberg it is also spasmodic While disinfection is going on in Berlin I stop it at Konigsberg By special permission of the Consul General, and as a favor to the merchants, I went to Hanover and Harburg The quantities here being small, we finished rapidly by working full force and long hours I do not suppose that any scientific man claims that the sulphur process has any effect as a germicide upon the bacillus of Koch Bacilli are killed by drying but it is necessary to bear in mind that they must be exposed to the drying process in thin layers At the temperature of boiling water they are invariably killed, but not *their spores* Even heating them from half an hour to several hours at a temperature of 55° or 60° C kills them, but not their spores Freezing has no effect upon the spores "The spores represent the seeds, capable of retaining life, and of germinating into bacilli, even after what would appear the most damaging influences (that is, damaging to all other kinds of organisms, and to the bacilli themselves), such as long lapses of time, drying, heat, cold, chemical reagents, etc Spores retain the power to germinate into bacilli after the lapse of long periods, and there is no reason to assume that these periods have any limits, it makes no difference whether they are kept dry or in the mother liquid The great resistance of spores high temperatures, to acids or other s due to this, that the substance of each veloped in a double sheath—an intern probably of a fatty nature, and an ext probably of cellulose Both are bad con heat"—(Klein)

While it is undoubtedly true, then, tha tion is valueless as a preventive of cho equally true that its value as a hygienic me not be overestimated All rags comin United States for the next few years shou infected, because this process does act as cide in the micro organisms of typhoid (?)— this is not a specific organism, but a migr from the degenerated intestine—small pox, d dysentery, etc , and just in proportion as t fection is thoroughly done, so much the be the health of our entrepôts be But why this about cholera? Even in Spain the disease sumed but small proportions, and Spain is miles removed from Berlin The health of Germany is perfect, and if it be true that r convey the potent cholera bacillus, it seems s that the many hundreds of men, women and c who are engaged here in assorting, baling, a ranging, who daily respire for many hours the atmosphere, and whose bodies are in a ripe tion for infection, never show any symptoms disease It is natural to suppose that the in dence of rag infection would be manifested persons of those here in Germany who are en in handling them Does the bacillus (or the s thereof) carry a potency for cholera within its m scopic envelope?

I lately saw a laparotomy for rupture of the ut which was successful in regard to the mother operation was done, and very properly done, a two hours after the accident The abdominal ca the uterine cavity and vagina were thoroughly w out with warm carbolized water, the stream kept up for ten or fifteen minutes The intest were thoroughly cleansed, and drainage establis *through the vagina* The rent in the uterus sewn up, and the abdominal wound closed danger in these cases is not from the operation which is not any more difficult or hazardous t many similar abdominal sections for uterine tum Indeed, it is not in itself as severe as a supra-vag hysterectomy The mischief has already been do by the rending of the uterine tissue The nerv system has received a profound shock, which exaggerated as the hæmorrhage continues An i mediate operation is the only hope The dang are all tenfold intensified by waiting Adventitio sacs will form, plastic adhesions will prove troub some, and the system generally will appreciate th septic changes engendered by the decomposing mas within the abdomen A late operation can *never* result favorably, all the pathological change against it If seen early enough, even tho fœtus may have escaped *per vias naturale* otomy is the best safeguard against septicæmi diagnosis of an impending rupture of the of the Illinoi such immense difficulty, and seems to college or scal, that it seems difficult to believe it is any dead l Lusk asserts that it can be fore-authority,, and in some instances prevented This sufficientnement of diagnosis not as yet reached by only for obstetricians, and not admitted by German State, a

any othold is having some good results from Saen the limiethod of Caesarian section, and prefers this buy anvative plan to the Poiro Muller He has had same, sases, all of them successful

shall, oHans Buchner ("Ueber die Experimentale than ozung des Milzbrandcontagiums, etc") says countye has succeeded in transforming the common more is of hay infusion, the hay bacillus, into the conviax bacillus, and that he has done this by suc-countre cultivation of bacillus anthracis under *con*

Sec *varation of the nutritive material* Morpho LIVERally considered, both of these forms come under remaiead of Cohn's bacillus subtilis Lately I have mand very carefully through all of Buchner's work, shall I have entirely failed to reproduce his results more bacillus anthracis is non motile Ewart's asser-and that they became motile is not borne out by one e elaborate experiments Koch regards Buch-dolls statements that successive cultivations of the afteillus anthracis at 35° to 37° assumes the morpho-lars, al and physiological characteristics of hay bacil-than , a complete error It will be a serious matter discrete animal kingdom if Buchner's opinions shall for bubstantiated by other observers H R B

Se(

BODII

MESTIC CORRESPONDENCE

EMIC DYSENTERY AT PORTER, INDIANA

OR JOURNAL AMERICAN MEDICAL ASSOCIATION

ear Sir —In as much as I have many cases er treatment at Porter, Indiana, I deem it expe-t to give you my observation of the existing epi-of suc The malady raging is *epidemic dysentery* of t e Aug 3, I have had, at Porter, 28 cases of negentery under my care Two of these cases, Mrs alty o B——, aged 20 years, and Peter S——, aged hunyears, are of a typhoid type,—prognosis doubt-jail, the other cases, 26 in number, are improving or A rumor has gained currency that the epidemic at to Irter was caused by the eating of diseased meat, estrchased of a certain butcher of Chesterton Indi-thea Of the 28 cases under my care, not one had coten meat purchased from said butcher, and in any instances, no meat had been eaten for several preeks

St Porter, Indiana, is situated on a low flat tract of found, and is not blessed with any kind of sewerage or drainage Ditches run parallel with the side-walks of the several thoroughfares,—these ditches have no outlet The main alley of the town is a mass of garbage and filth, the majority of the privies along this alley are overflowing As a rule, the well in each yard is from 10 to 20 feet from the alley and privy The floors of the houses set on the damp ground and, in many instances, six to eight people are crowded into two or three rooms

For three weeks previous to Aug 1, Porter had been subjected to sudden vicissitudes of temperature from a high to a low range, for the seven days previous to Aug 1, the climate resembled a tropical one, and was followed by a heavy, drenching rain of 24 hours duration, making a fall of about 4½ to 5 inches of water The lack of the proper sewerage and drainage, the bad sanitary condition of the town, the continued high temperature, followed by a heavy rain fall, the swampy country, the damp and cold crowded houses, the polluted well water, the noxious air,—all were conducive to miasmatic diseases of the dysenteric type After a thorough investigation, I have failed to trace a single one of my 28 cases to tainted meat Yours truly,

ALEX J MULLEN, JR M D

Michigan City, August 10, 1885

BOOK REVIEWS

A SYSTEM OF PRACTICAL MEDICINE BY AMERICAN AUTHORS EDITED BY WILLIAM PEPPER, M D, LL D, etc Assisted by LOUIS STARR, M D, etc Volume II General Diseases (continued) and Diseases of the Digestive System Philadelphia Lea Brothers & Co, 1885

What was said of the general character of this work, in the notice of the first volume, need not be repeated here Indeed, in order to show the value of the second volume, it is scarcely necessary to do more than give a list of the various subjects treated of, with the names of the writers

The first 254 pages of the work are what may be called a continuation of the first volume on General Diseases The volume opens with an article on Rheumatism, by Prof Howard, of McGill University, and is followed by one on Gout, by Dr W H Draper The other articles on general diseases are Rachitis, by A Jacobi, Scurvy, by Philip S Wales, Purpura, by I Edmondson Atkinson, Diabetes Mellitus, by James Tyson, Scrofula, by John S Lynch, and Hereditary Syphilis, by J William White With such an array of most excellent articles by thoroughly competent writers it is difficult to select one or two that seem worthy of special mention Those on Diabetes and Hereditary Syphilis, however, seem more worthy of special mention, if any are Professor Tyson's article, though occupying only thirty-six pages, seems to leave nothing unsaid that could possibly be of benefit to the practitioner who has under his care a case of diabetes, and it is especially valuable for the remarks on the tests for sugar and the bill of fare for diabetics The writer is deservedly known for his thorough urological work, and the diet table for diabetics is alone worth the price of the work

Dr J William White discusses the subject Hereditary Syphilis in 64 pages, with an array of references that is marvelous as regards completeness, there being not less than two hundred and ten Of the article itself it need scarcely be said that it is as complete as an article on this subject could possibly be

In the second part of the book, on Diseases of the Digestive System, are thirty articles Those

This is opened at the expiration of the disinfection In Konigsberg I utilized an old sugar house with a chimney 120 feet high There was one large room where the rags were scattered about, and a small room adjoining, in which a special furnace of brick was built for the burning of sulphur Four large tubes perforated the partition between the two rooms, through which the fumes of the sulphur are blown This is a very practical and safe arrangement The large chimney was used as a ventilator About seventy pounds of sulphur every day are consumed by each of the two firms exporting from Konigsberg Working full force, and keeping late hours, each firm in Konigsberg, if pressed, could disinfect and press nearly 300 bales per diem In this city more rags are baled and shipped than from any other port in Germany—perhaps from any other two cities The business here is almost entirely controlled by Lewy Gebruder and Lewy and Strich Berlin does but a small business, averaging, perhaps, forty bales per diem If the market were active, the same two firms, who also control the business here, could bale about 150 bales each per diem Since my appointment the Berlin firms have only disinfected about 2,700 bales, burning on the average fifty pounds of sulphur for each twenty or twenty-five bales, and disinfecting sometimes twice in the day In Hanover and Harburg the Gebruder Salomon have extensive facilities, and, if necessary, could bale in the two places about 350 to 500 bales per diem I have inspected about 700 bales from each of these cities

Now the question naturally arises—How is it possible for one inspector to give his personal attention to places so widely separated from each other? The answer is a simple one At no one city is the business constant It is always intermittent Little is done at Berlin, and that irregularly At Konigsberg it is also spasmodic While disinfection is going on in Berlin I stop it at Konigsberg By special permission of the Consul General, and as a favor to the merchants, I went to Hanover and Harburg The quantities here being small, we finished rapidly by working full force and long hours I do not suppose that any scientific man claims that the sulphur process has any effect as a germicide upon the bacillus of Koch Bacilli are killed by drying, but it is necessary to bear in mind that they must be exposed to the drying process in thin layers At the temperature of boiling water they are invariably killed, but not *their spores* Even heating them from half an hour to several hours at a temperature of 55° or 60° C kills them, but not their spores Freezing has no effect upon the spores "The spores represent the seeds, capable of retaining life, and of germinating into bacilli, even after what would appear the most damaging influences (that is, damaging to all other kinds of organisms, and to the bacilli themselves), such as long lapses of time, drying, heat, cold, chemical reagents, etc Spores retain the power to germinate into bacilli after the lapse of long periods, and there is no reason to assume that these periods have any limits, it makes no difference whether they are kept dry or in the mother liquid The great resistance of spores high temperatures, to acids or other su due to this, that the substance of each veloped in a double sheath—an internal probably of a fatty nature, and an exter probably of cellulose Both are bad condu heat"—(Klein)

While it is undoubtedly true, then, that d tion is valueless as a preventive of cholera equally true that its value as a hygienic measu not be overestimated All rags coming United States for the next few years should infected, because this process does act as a cide in the micro organisms of typhoid (?)—pro this is not a specific organism, but a migrator from the degenerated intestine—small pox, diar dysentery, etc , and just in proportion as the fection is thoroughly done, so much the bette the health of our entrepôts be But why this an about cholera? Even in Spain the disease ha sumed but small proportions, and Spain is m miles removed from Berlin The health of N Germany is perfect, and if it be true that rags convey the potent cholera bacillus, it seems stra that the many hundreds of men, women and chil who are engaged here in assorting, baling, and ranging, who daily respire for many hours the " atmosphere, and whose bodies are in a ripe c tion for infection, never show any symptoms disease It is natural to suppose that the in dence of rag infection would be manifested i persons of those here in Germany who are en in handling them Does the bacillus (or the s thereof) carry a potency for cholera within its scopic envelope?

I lately saw a laparotomy for rupture of the ut which was successful in regard to the mother operation was done, and very properly done, a two hours after the accident The abdominal ca the uterine cavity and vagina were thoroughly w out with warm carbolized water, the stream kept up for ten or fifteen minutes The intest were thoroughly cleansed, and drainage establi *through the vagina* The rent in the uterus sewn up, and the abdominal wound closed danger in these cases is not from the operation it which is not any more difficult or hazardous t many similar abdominal sections for uterine tum Indeed, it is not in itself as severe as a supra vag hysterectomy The mischief has already been do by the rending of the uterine tissue The nerve system has received a profound shock, which exaggerated as the hæmorrhage continues An mediate operation is the only hope The dange are all tenfold intensified by waiting Adventitio sacs will form, plastic adhesions will prove troub some, and the system generally will appreciate th septic changes engendered by the decomposing mas within the abdomen A late operation can *never* result favorably, all the pathological changes ar against it If seen early enough, even though th fœtus may have escaped *per vias naturales*, laparotomy is the best safeguard against septicæmia The diagnosis of an impending rupture of the uterus is of the Illinoi such immense difficulty, and seems to college or seal, that it seems difficult to believe it is any dead l Lusk asserts that it can be fore- authority,, and in some instances prevented This sufficientnement of diagnosis not as yet reached by only for obstetricians, and not admitted by German State, a

any othold is having some good results from Saen- the limiethod of Cæsarian section, and prefers this buy anvative plan to the Porro Muller He has had same, sases, all of them successful

shall, oHans Buchner ("Ueber die Experimentale than ozung des Milzbrandcontagiums, etc") says countye has succeeded in transforming the common more is of hay infusion, the hay bacillus, into the conviax bacillus, and that he has done this by suc- count e cultivation of bacillus anthracis under *con-*

Sec *variation of the nutritive material* Morpho LIVERilly considered, both of these forms come under remaiead of Cohn's bacillus subtilis Lately I have manc very carefully through all of Buchner's work, shallI have entirely failed to reproduce his results more bacillus anthracis is non motile Ewart's assei- and that they became motile is not borne out by one e elaborate experiments Koch regards Buch dolls statements that successive cultivations of the afterllus anthracis at 35° to 37° assumes the morpho- lars, al and physiological characteristics of hay bacil- than a complete error It will be a serious matter discrete animal kingdom if Buchner's opinions shall for bubstantiated by other observers H R B

Sec

BODII

fesso MESTIC CORRESPONDENCE

leges

)EMIC DYSENTERY AT PORTER, INDIANA

any

visio 'OR JOURNAL AMERICAN MEDICAL ASSOCIATION

cem*ear Sir*—In as much as I have many cases erly ər treatment at Porter, Indiana, I deem it expe- bod*it to give you* my observation of the existing epi- of sac The malady raging is *epidemic dysentery* of t e Aug 3, I have had, at Porter, 28 cases of neglentery under my care Two of these cases, Mrs altyo B——, aged 20 years, and Peter S——, aged hunyears, are of a typhoid type,—prognosis doubt- jail, the other cases, 26 in number, are improving or A rumor has gained currency that the epidemic at to rter was caused by the eating of diseased meat, estrchased of a certain butcher of Chesterton Indi thea Of the 28 cases under my care, not one had coten meat purchased from said butcher, and in any instances, no meat had been eaten for several preeks

St Porter, Indiana, is situated on a low flat tract of fond, and is not blessed with any kind of sewerage r drainage Ditches run parallel with the side- walks of the several thoroughfares,—these ditches have no outlet The main alley of the town is a mass of garbage and filth, the majority of the privies along this alley are overflowing As a rule, the well in each yard is from 10 to 20 feet from the alley and privy The floors of the houses set on the damp ground and, in many instances, six to eight people are crowded into two or three rooms

For three weeks previous to Aug 1, Porter had been subjected to sudden vicissitudes of temperature from a high to a low range, for the seven days previous to Aug 1, the climate resembled a tropical one, and was followed by a heavy, drenching rain of 24 hours duration, making a fall of about 4½ to 5 inches of water The lack of the proper sewerage and drainage, the bad sanitary condition of the town, the continued high temperature, followed by a heavy rainfall, the swampy country, the damp and cold crowded houses, the polluted well water, the noxious air,—all were conducive to miasmatic diseases of the dysenteric type After a thorough investigation, I have failed to trace a single one of my 28 cases to tainted meat Yours truly,

ALEX J MULLEN, JR, M D

Michigan City, August 10, 1885

BOOK REVIEWS

A SYSTEM OF PRACTICAL MEDICINE BY AMERICAN AUTHORS EDITED BY WILLIAM PEPPER M D, LL D, etc Assisted by LOUIS STARR, M D, etc Volume II General Diseases (continued) and Diseases of the Digestive System Philadelphia Lea Brothers & Co, 1885

What was said of the general character of this work, in the notice of the first volume, need not be repeated here Indeed, in order to show the value of the second volume, it is scarcely necessary to do more than give a list of the various subjects treated of, with the names of the writers

The first 254 pages of the work are what may be called a continuation of the first volume on General Diseases The volume opens with an article on Rheumatism, by Prof Howard, of McGill University, and is followed by one on Gout, by Dr W H Draper The other articles on general diseases are Rachitis, by A Jacobi, Scurvy, by Philip S Wales, Purpura, by I Edmondson Atkinson, Diabetes Mellitus, by James Tyson, Scrofula, by John S Lynch, and Hereditary Syphilis, by J William White With such an array of most excellent articles by thoroughly competent writers it is difficult to select one or two that seem worthy of special mention Those on Diabetes and Hereditary Syphilis, however, seem more worthy of special mention, if any are Professor Tyson's article, though occupying only thirty-six pages, seems to leave nothing unsaid that could possibly be of benefit to the practitioner who has under his care a case of diabetes, and it is especially valuable for the remarks on the tests for sugar and the bill of fare for diabetics The writer is deservedly known for his thorough urological work, and the diet table for diabetics is alone worth the price of the work

Dr J William White discusses the subject Hereditary Syphilis in 64 pages, with an array of references that is marvelous as regards completeness, there being not less than two hundred and ten Of the article itself it need scarcely be said that it is as complete as an article on this subject could possibly be

In the second part of the book, on Diseases of the Digestive System, are thirty articles Those on Diseases of the Mouth and Tongue, of the Tonsils, of the Pharynx, and of the Œsophagus are by Dr J Solis Cohen Dr Samuel G Armor writes on Functional and Inflammatory Diseases of the Stomach, Professor W H Welch on Simple Ulcer of the Stomach, Cancer of the Stomach, Hemorrhage from the Stomach, Dilatation of the Stomach, and Minor Organic Affections of the Stomach (including Cirrhosis, Hypertrophic Stenosis of Pylorus, Atrophy, Anomalies in the Form and Position of the Stomach, Rupture, Gastro malacia) The six articles on Intestinal Indigestion, Constipation, Enteralgia, Acute Intestinal Catarrh, and Cholera Morbus are by Prof W W Johnston, of Washington Dr J Lewis Smith contributes the article on Intestinal Affections of Children in Hot Weather, Dr Philip S Wales that on Pseudo membranous Enteritis, and Professor James T Whittaker those on Dysentery, Typhlitis, Perityphlitis and Paratyphlitis, Intestinal Ulcer, and Hemorrhage of the Bowels The article on Intestinal Obstruction is by Dr Hunter McGuire, on Cancer and Lardaceous Degeneration of the Intestines by Dr Edmondson Atkinson, and that on Diseases of the Rectum and Anus by Drs Thomas C Morton and Henry M Wetherill Profesosr Leidy contributes that on Intestinal Worms, Professor Roberts Bartholow that on Diseases of the Liver, and the Assistant Editor that on Diseases of the Pancreas The long and very valuable article on Peritonitis by Prof Alonzo Clark will be read with more than ordinary interest, especially by those who have, for many years past, listened to his lectures on this subject The concluding article, Diseases of the Abdominal Glands (Tabes Mesenterica), is by Dr Samuel C Busey

We see no reason to do otherwise than reiterate the very favorable opinion expressed of this work when the first volume was noticed in the Journal The work is in the highest sense American, a careful reading of the articles will show that authors have attempted to say what was necessary in the fewest words without being unduly terse Certainly in the two volumes that have thus far appeared there is nothing of that tiresome verbosity and wandering from the subject that is so common in similar works from the Continent of Europe The index—one hundred and eighteen pages—seems to be quite complete

---

ASSOCIATION ITEMS

MEMBERSHIP BY APPLICATION

At the meeting of the American Medical Association held at Washington, in May, 1884, an amendment to Regulation II was adopted, which provides that membership in the Association shall be obtainable by any member of a State or County Medical Society recognized by the Association, upon application endorsed by the President and Secretary of said Society, and shall be retained so long as he shall remain in good standing in his local Society, and shall pay his annual dues to the Association Hitherto attendance as a delegate at an annual meeting has been necessary in order to obtain such membership

Application for membership, accompanied with Five Dollars, for annual dues, and the Certificate of Membership in the local Society, should be sent directly to the undersigned, on receipt of which the weekly Journal of the Association will be forwarded for one year

Richard J Dunglison, M D, *Treasurer*
Lock Box 1274, Philadelphia, Pa

MISCELLANEOUS

State Medical Society of Virginia —The Medical Society of Virginia, will convene at Alleghany Springs, Montgomery Co, Virginia, on Tuesday, September 15 The Fellows and Delegates will be guests of the Alleghany Springs Management Liberal rates have been offered by the railroads of the State, and a large attendance is expected The programme of the meeting will be more fully detailed in a subsequent issue of the Journal

---

The Mississippi Valley Medical Society will meet at Evansville, Ind, on September 8, 9, and 10, 1885 Railroads will return those attending at one third rates Hotels, $1 50 to $2 00 per day This was formerly the Tri State Medical Society For further particulars address Dr A M Owen, Evansville, Indiana

---

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM AUGUST 8 1885 TO AUGUST 14 1885

Capt Thos F 'Ayfull, Asst Surgeon retired from active service Aug 10, 1885 (S O 181, A G O Aug 10, 1885)

First Lt A R Chapin, Asst Surgeon, granted one month's leave, to take effect when services can be spared by Comd'g Gen'l Dept Mo, with permission to apply for one month's extension (S O 179, A G O Aug 6, 1885)

First Lt Philip G Wales, Asst Surgeon (Ft Couer d'Alene, Idaho), ordered for temporary duty at Boise Barracks, Idaho (S O 130, Dept Colo, Aug 1, 1885)

APPOINTMENT

William P Kendall, to be Asst Surgeon U S Army, with the rank of First Lieutenant, to date from Aug 12, 1885

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY, DURING THE WEEK ENDING AUGUST 15 1885

Beyer, H G, Passed Asst Surgeon To attend the meeting of the "American Association for the Advancement of Sciences," at Ann Arbor, Mich, and at conclusion of meeting to resume duty at the Smithsonian Institute

Boyd, John C, Passed Asst Surgeon From Navy Yard, at Washington, D C, to special duty at Bureau of Medicine and Surgery, Washington, Navy Department

Lippincott, J C, Passed Asst Surgeon To Navy Yard, at Washington, D C, as relief of Passed Asst Surg Boyd

Owens, Thomas, Asst Surgeon From special duty at Bureau of Medicine and Surgery, Navy Dep't, and waiting orders

Sayre, J S, Asst Surgeon From U S R S "Independence" to Naval Hospital, Mare Island, Cal

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N S DAVIS

PUBLISHED WEEKLY

Vol V CHICAGO, AUGUST 29, 1885 No 9

ORIGINAL ARTICLES

THE SIMILARITY OF ELECTRIC AND NERVE FORCES[1]

BY JOHN J CALDWELL, M D,

OF BALTIMORE MD

In the torpedo the body is somewhat oval and rounded Our native species, found mostly in winter, especially on the low, sandy shores of Cape Cod is Torpedo occidentalis (Storer) Its batteries and nerves are substantially as in the European species The electrical organs are constructed on the principle of the Voltaic pile, consisting of two series or layers of hexagonal cells, the space between the numerous fine transverse plates in the cells filled with a jelly-like, trembling mass, each cell representing, so to speak, a Leyden jar There are about 470 cells in each battery, each provided with nerves sent off from the fifth and eighth pairs of nerves The dorsal side of the apparatus is positively electrical, the ventral side negatively so The electrical current passes from the dorsal to the ventral side When the electrical ray is disturbed by the touch of any object, the impression is conveyed by the sensory nerves to the brain, exciting there an act of will which is conveyed along the electric nerves to the batteries, producing a shock The benumbing force is lost by frequent exercise, being regained by rest, it is also increased by energetic circulation and respiration As in muscular exertion, the electrical power is increased by the action of strychnine (Owen)

Marey has quite recently made interesting experiments on the torpedo, examining the discharge of the fish with the telephone Slight excitations provoked a short, croaking sound Each of the small discharges was composed of a dozen plexus and pulsations, and lasting about one fifteenth of a second The sound from a prolonged discharge, however, continued three or four seconds, and consisted of a sort of groan, with a tonality of about *mi* (165 vibrations), agreeing pretty closely with the result of "graphic experiments" Marey has also studied the resemblance of the electrical apparatus of the electrical ray or torpedo and a muscle Both are subject to will, provided with nerves of centrifugal action, have a very similar chemical composition, and resemble each other in some points of structure A muscle in contraction and in tetanus executes a number of successive small movements or shocks, and a like complexity has been proved by M Marey in the discharge of the torpedo —(Packard, Zoology)

Malapterurus electricus (Lacepede), of the Nile, is electrical, the electric cells forming a layer directly beneath the skin, and enveloping the whole body except the head and fins The cells are minute, lozenge shaped, about one and a half millimetres in diameter They are supplied by a nerve from the spinal cord The shock is comparatively feeble, but suffices for defence, the fish being protected by its electrifying coat as the hedge-hog by its spines (Owen) One of the lowest teleosts, the electrical eel (gymnotus electricus), of South America, is two metres in length, and is characterised by its greatly-developed electrical batteries These are four in number, situated two on each side of the body, and together form nearly the whole lower half of the trunk The plates of the cells are vertical instead of horizontal as in the torpedo, while the entire batteries, or cells, are horizontal instead of vertical as in the electrical ray The nerves sent to the batteries of the eel are supplied by the ventral branches of about two hundred pairs of spinal nerves

In the torpedo there are about 470 cells in each battery This is one of the lowest orders of vertebrates, and therefore the battery construction is simple, the discharges resembling more those from a charged Leyden jar The machine remains at rest to be re charged before another manifestation of power As we ascend, the organism becomes more complex, and in the higher fishes and reptilia and lower mammals the electric apparatus resembles more dynamic electricity, whilst in chimpanzee and gorilla we have Faradic electricity, and, lastly, in man the phenomena require a combination of the different manifestations of this force Hence we have discharge as from a Leyden jar when we knock a man heels over head, whilst in reasoning we employ, or bring into relation, or co ordinate all of the different arrangements, resulting in magnetico-statico dynamic force—ratiocination (S)

As I have contended for years past, it is apparent, from the close analogy of electricity to nerve force, that this agent embraces a wide range of morbid conditions Through the nervous cords which act as conductors, every part of the animal economy can be reached In this way secretion and elimination of morbid products may be promoted, and the organ or apparatus restored to healthy action The three great forces of nature are heat, light, and electricity These are the forces under whose influence vegetation is produced Heat and moisture cause the germ of life in seed to awaken, the materials stored up for the use of the embryo undergo change, both chemical and mechanical, so as to be fit for appropriation The architecture of the plant begins A spire shoots up from the bud, under the influence of the sun's light, the food afforded by the atmosphere is appropriated Forces are active at the root, forces are active in the blade There is no doubt, in my opinion, that electricity is one of the active forces which contribute to plant growth We have all the conditions of its generation—heat, moisture, unequal heating of different mineral substances, causing thermo electricity We also have chemical action It is impossible to draw a line of demarcation between vegetable and animal structure, and I doubt not that heat, light and electricity are the physical forces under which animal structure is built up The light of the sun is as necessary to the health and vigor of the animal as of the vegetable kingdom Indeed, as already stated, the two shade into each other so as to render it impossible to say where the vegetable ceases and the animal begins Electricity, being one of the forces which contribute to the animal organism, is necessary to functional health

---

[1] Read in the Section of Practical Medicine Materia Medica and Physiology at the Thirty Sixth Annual Meeting of the American Medical Association

ELECTRICAL FORCE IN MAN AND NATURE

All phenomena of the organic or inorganic world are now being interpreted in the terms of matter, motion and force The pilot idea of the doctrine of evolution to day is that everything proceeds from the simple to the complex, and that back of all the manifestations of matter and of mind there lies "unity of force" It is this acting, living, persistent principle which constantly sits at the loom of time, and arranges the position and the texture of the threads that make up the web of things This ancient weaver called "Force" has received many different names When it works among molecules we call it cohesive attraction When it works among the ultimate atoms, building them up into the delicate and beautiful crystals we call it the crystallizing forces When engaged in uniting kindred atoms we call it chemical force, or chemical affinity Our meaning, however, is sufficiently indicated without further extension of the list of forces

Nature delights in prodigality of results, but she is parsimonious in the number of her working powers Given a little matter and motion and she will construct a world The lines of force radiate in all directions, always acting, always persistent Difference of result is but the product of the same force differently conditioned A tree and a mammal betray the same parent force In the ultimate analysis we reach simplicity of cause and "unity of force"

Perhaps one of the most impressive instances of the play of force is to be seen in the phenomena of light Light is but a result of the rapid oscillations of the ether waves Hundreds of millions of these waves strike the retina before we are conscious of the sensation of light How this sensation is translated into consciousness is a mode of force of which we know nothing One fact, however, has been determined, viz that color is a result of motion Less rapid oscillations are required to produce in us the sensation of the red in the spectrum than o the violet Electric light, which is the most intense of all light, is but a product of exalted motion A certain degree of motion produces sound, this motion increased produces heat, a further increase produces all the colors of the spectrum in their regular order Still exalting this motion, we obtain electric light

The theory of wave motion in the ether had its origin in the wave motion of water and atmosphere The ear sustains the same relation to sound that the eye does to light There is a close analogy between the harmony of sound and the harmony of color The rhythm of sound has its unvarying conditions in reference to the human ear Atmospheric vibrations, when they exceed a certain number per second, lose their individuality, and become merged into a hum of indistinct sound The auditory nerve is finely adapted to take in the whole range of the gamut Sounds, higher or lower, in either direction, cease to be distinct

It remains to say a word in reference to the more special manifestations of force The human system supplies the most appropriate example From the persistence of force we can but conclude that between the mind and body there is the closest relation, sensation, thought, and our most involved sentiments imply the destruction of waste of the gray tissue of the brain molecules This waste is only another name for one mode of the "play of force" In a word, man, as he is, is but a product of force, acting, in the first instance, on a germ hardly microscopic, and mind, with all its wonderful and complicated powers, is evolved from the simplest beginnings A Raphael or a Newton are evolved, in common with the lowest orders of animal life, from the product of the same force, controlled and governed by the same law, which had its fitting conditions and relations Want of harmony in these, as we before remarked, implies want of harmony in result A healthy mind, healthy morals and a healthy religion are the resultants of the unimpeded action of force

THE ADVANCE OF MEDICAL SCIENCE

A knowledge of the brain and of the network of the nervous system is the essential to every educated physician, who would minister to a body, or to a mind diseased The ability to maintain a proper medium, through the exaltation or depression of nerve power is requisite to him who would understand correctly the nervous system Her path to universal empire, will continue to be, as it is now, dotted all along with rejected theories She is now making rapid strides, and has indeed become an ocean of truth Let us keep abreast, at least, of that portion of its mighty tide which is now carrying the science of medicine beyond its ancient land-marks, enriching it with new truths Just how electricity acts as a therapeutic agent, no experimenter has satisfactorily explained, though learned minds have elaborated ingenious theories, simple and complex, still we will maintain our text " The unity of Force " We will again note that electricity is but another name for the most exalted motion known We will then be able, in some degree, to comprehend its action upon our bodies, and its true place in medicine, and how it acts through the brain, and its infinite ramifications Nerve velocity is 60 yards per second, sound velocity is 332 yards per second, cannon ball velocity is 550 yards per second, light velocity is 360,000,000 yards per second, electrical velocity is 450,000,000 yards per second

Hence it can be readily understood, how electricity, direct action, may accelerate our natural forces, how its reverse action may depress them, how its chemical action may dissolve or electrolize morbid growth, how even may dilate the vascular system, or accelerate the vaso motor, and how, through the sympathetic system exalt the trophic powers, or produce inhibitory action

The attention of electricians was concentrated upon Electro Physics until the perfection of the mechanical contrivance by Morse In due time it was known to the medical profession that electricity was a powerful therapeutic agent, and its applications in the treatment of diseases wrested from the hands of quacks and charlatans Electro Therapy is now an important specialty in medicine The close analogy of electric to nerve force at once caused attention to be directed to its employment in the treatment of nervous diseases, but experiment has shown that it is applicable to the treatment, the relief and cure of other pathological conditions Thus it may be used as a tonic in cases of nervous debility, in cases of paralysis so as to take the place of nerve force which presides over functions of nutrition The nutrition of the paralysed limb is thus sustained, and likewise the revival of nervous energy promoted It is apparent from the close analogy of electricity to nerve force, that this agent embraces a wide range of therapeutic conditions Through the nervous cords which act as conductors, every part of the animal organism can be reached In this way secretion and elimination of morbid products may be promoted, and the organ or apparatus restored to healthy action

The three great forces of nature are heat, light and electricity These are the forces under whose influence vegetation is produced Heat and moisture cause the germ of life in seed to waken the materials stored up for the use of the embryo undergo changes both chemical and mechanical, so as to be fit for appropriation The architecture of the plant begins A spire shoots up from the bud, under the influence of the sun s light, the food afforded by the atmosphere is appropriated Forces are active at the root, and forces are active in the blade There is no doubt that electricity is one of the active forces which contributes to plant growth We have all the conditions of its generation, heat, moisture, unequal heating of different mineral substances, causing thermo electricity We also have chemical action It is impossible to draw a line of demarcation between vegetable and animal structure, and doubt not that heat, light and electricity are the physical forces under which animal structure is built up The light of the sun is as necessary to the vigor and health of the animal, as of the vegetable kingdom Indeed, as already stated, the two shade into each other so as to render it impossible to say where the vegetable ceases, and the animal begins Electricity being one of the forces which contributes to the animal organism, is necessary to functional health

The various conditions under which electricity is manifested enable us to apply it to a variety of morbid conditions Its wonderful decomposing power (electrolysis) has been utilized by the physician The intense heat incident to its manifestations by certain combinations, has enabled the surgeon to substitute in many cases the cautery for the knife, indeed to apply it to the section of morbid growths not remedial by the knife

It may be stated in order that progress shall be had in any branch of science, appropriate apparatus is necessary Scientific speculation is a great lever, but it must be controlled by experiment, speculation must be tested by experiment, for the human mind is too apt to be seduced by the pleasure of speculative philosophy, and too prone to abandon the paths of observation and sound induction From the want of apparatus and the ignorance of its different modes of manifestation, electricity as a therapeutic agent was seized upon by the charlatan and neglected by intelligent practitioners of medicine By a curious coincidence the discoveries of electric science and improved apparatus was accompanied by great discoveries in regard to the functions of the nervous system Whilst Oersted, Ampère, Faraday and others were making rapid strides in electric science, Sir Charles Bell, Magendie, *Marshall Hall, Claude* Bernard, Brown Sequard and others were unravelling the intricacies of the nervous system In no era of the world has there ever been such activity in scientific investigations, and the applications of science to the material comfort and welfare of mankind At last the votaries of medicine contribute their quota, and many of the most eminent of the profession are devoting their talents and energies to the therapeutical effects of electric force in the treatment of diseases

Electricity in suspended vital functions —We have been induced to try the effects of electricity in cases of suspended vital function resulting from narcosis, and cases of apparent death from drowning, from experiments upon living rabbits, made by Sir Wilson Phillips, of England, from which it appears that electric force was used to substitute nerve power The pneumogastric nerve of the animal was severed immediately after it had eaten some parsley After the death of the animal, which had great difficulty of breathing, and perished apparently from suffocation, the stomach was opened and the parsley found undigested A similar experiment of section of pneumogastric nerve was made, but a current of galvanism passed along the nerve, and continued for 26 hours of morbid products may be promoted, and the organ or apparatus restored to healthy action. The three great forces of nature are heat, light, and electricity. These are the forces under whose influence vegetation is produced. Heat and moisture cause the germ of life in seed to awaken, the materials stored up for the use of the embryo undergo change, both chemical and mechanical, so as to be fit for appropriation. The architecture of the plant begins. A spire shoots up from the bud, under the influence of the sun's light, the food afforded by the atmosphere is appropriated. Forces are active at the root, forces are active in the blade. There is no doubt, in my opinion, that electricity is one of the active forces which contribute to plant growth. We have all the conditions of its generation—heat, moisture, unequal heating of different mineral substances, causing thermo-electricity. We also have chemical action. It is impossible to draw a line of demarcation between vegetable and animal structure, and I doubt not that heat, light and electricity are the physical forces under which animal structure is built up. The light of the sun is as necessary to the health and vigor of the animal as of the vegetable kingdom. Indeed, as already stated, the two shade into each other so as to render it impossible to say where the vegetable ceases and the animal begins. Electricity, being one of the forces which contribute to the animal organism, is necessary to functional health.

ELECTRICAL FORCE IN MAN AND NATURE

All phenomena of the organic or inorganic world are now being interpreted in the terms of matter, motion and force. The pilot idea of the doctrine of evolution to day is that everything proceeds from the simple to the complex, and that back of all the manifestations of matter and of mind there lies "unity of force." It is this acting, living, persistent principle which constantly sits at the loom of time, and arranges the position and the texture of the threads that make up the web of things. This ancient weaver called "Force" has received many different names. When it works among molecules we call it cohesive attraction. When it works among the ultimate atoms, building them up into the delicate and beautiful crystals we call it the crystallizing forces. When engaged in uniting kindred atoms we call it chemical force, or chemical affinity. Our meaning, however, is sufficiently indicated without further extension of the list of forces.

Nature delights in prodigality of results, but she is parsimonious in the number of her working powers. Given a little matter and motion and she will construct a world. The lines of force radiate in all directions, always acting, always persistent. Difference of result is but the product of the same force differently conditioned. A tree and a mammal betray the same parent force. In the ultimate analysis we reach simplicity of cause and "unity of force."

Perhaps one of the most impressive instances of the play of force is to be seen in the phenomena of light. Light is but a result of the rapid oscillations of the ether waves. Hundreds of millions of these waves strike the retina before we are conscious of the sensation of light. How this sensation is translated into consciousness is a mode of force of which we know nothing. One fact, however, has been determined, viz., that color is a result of motion. Less rapid oscillations are required to produce in us the sensation of the red in the spectrum than o the violet. Electric light, which is the most intense of all light, is but a product of exalted motion. A certain degree of motion produces sound, this motion increased produces heat, a further increase produces all the colors of the spectrum in their regular order. Still exalting this motion, we obtain electric light.

The theory of wave motion in the ether had its origin in the wave motion of water and atmosphere. The ear sustains the same relation to sound that the eye does to light. There is a close analogy between the harmony of sound and the harmony of color. The rhythm of sound has its unvarying conditions in reference to the human ear. Atmospheric vibrations, when they exceed a certain number per second, lose their individuality, and become merged into a hum of indistinct sound. The auditory nerve is finely adapted to take in the whole range of the gamut. Sounds, higher or lower, in either direction, cease to be distinct.

It remains to say a word in reference to the more special manifestations of force. The human system supplies the most appropriate example. From the persistence of force we can but conclude that between the mind and body there is the closest relation, sensation, thought, and our most involved sentiments imply the destruction of waste of the gray tissue of the brain molecules. This waste is only another name for one mode of the "play of force." In a word, man, as he is, is but a product of force, acting, in the first instance, on a germ hardly microscopic, and mind, with all its wonderful and complicated powers, is evolved from the simplest beginnings. A Raphael or a Newton are evolved, in common with the lowest orders of animal life, from the product of the same force, controlled and governed by the same law, which had its fitting conditions and relations. Want of harmony in these, as we before remarked, implies want of harmony in result. A healthy mind, healthy morals and a healthy religion are the resultants of the unimpeded action of force.

THE ADVANCE OF MEDICAL SCIENCE

A knowledge of the brain and of the network of the nervous system is the essential to every educated physician, who would minister to a body, or to a mind diseased. The ability to maintain a proper medium, through the exaltation or depression of nerve power is requisite to him who would understand correctly the nervous system. Her path to universal empire, will continue to be, as it is now, dotted all along with rejected theories. She is now making rapid strides, and has indeed become an ocean of truth. Let us keep abreast, at least, of that portion of its mighty tide which is now carrying the science of medicine beyond its ancient land marks, enriching it with new truths. Just how electricity acts as a therapeutic agent, no experimenter has satisfactorily explained, though learned minds have elaborated ingenious theories, simple and complex, still we will maintain our text "The unity of Force." We will again note that electricity is but another name for the most exalted motion known. We will then be able, in some degree, to comprehend its action upon our bodies, and its true place in medicine, and how it acts through the brain, and its infinite ramifications. Nerve velocity is 60 yards per second, sound velocity is 332 yards per second, cannon ball velocity is 550 yards per second, light velocity is 360,000,000 yards per second, electrical velocity is 450,000,000 yards per second.

Hence it can be readily understood, how electricity, direct action, may accelerate our natural forces, how its reverse action may depress them, how its chemical action may dissolve or electrolize morbid growth, how even may dilate the vascular system, or accelerate the vaso motor, and how, through the sympathetic system exalt the trophic powers, or produce inhibitory action.

The attention of electricians was concentrated upon Electro Physics until the perfection of the mechanical contrivance by Morse. In due time it was known to the medical profession that electricity was a powerful therapeutic agent, and its applications in the treatment of diseases wrested from the hands of quacks and charlatans. Electro Therapy is now an important specialty in medicine. The close analogy of electric to nerve force at once caused attention to be directed to its employment in the treatment of nervous diseases, but experiment has shown that it is applicable to the treatment, the relief and cure of other pathological conditions. Thus it may be used as a tonic in cases of nervous debility, in cases of paralysis so as to take the place of nerve force which presides over functions of nutrition. The nutrition of the paralysed limb is thus sustained, and likewise the revival of nervous energy promoted. It is apparent from the close analogy of electricity to nerve force, that this agent embraces a wide range of therapeutic conditions. Through the nervous cords which act as conductors, every part of the animal organism can be reached. In this way secretion and elimination of morbid products may be promoted, and the organ or apparatus restored to healthy action.

The three great forces of nature are heat, light and electricity. These are the forces under whose influence vegetation is produced. Heat and moisture cause the germ of life in seed to waken, the materials stored up for the use of the embryo undergo changes both chemical and mechanical, so as to be fit for appropriation. The architecture of the plant begins. A spire shoots up from the bud, under the influence of the sun's light, the food afforded by the atmosphere is appropriated. Forces are active at the root, and forces are active in the blade. There is no doubt that electricity is one of the active forces which contributes to plant growth. We have all the conditions of its generation, heat, moisture, unequal heating of different mineral substances, causing thermo electricity. We also have chemical action. It is impossible to draw a line of demarcation between vegetable and animal structure, and doubt not that heat, light and electricity are the physical forces under which animal structure is built up. The light of the sun is as necessary to the vigor and health of the animal, as of the vegetable kingdom. Indeed, as already stated, the two shade into each other so as to render it impossible to say where the vegetable ceases, and the animal begins. Electricity being one of the forces which contributes to the animal organism, is necessary to functional health.

The various conditions under which electricity is manifested enable us to apply it to a variety of morbid conditions. Its wonderful decomposing power (electrolysis) has been utilized by the physician. The intense heat incident to its manifestations by certain combinations, has enabled the surgeon to substitute in many cases the cautery for the knife, indeed to apply it to the section of morbid growths not remedial by the knife.

It may be stated in order that progress shall be had in any branch of science, appropriate apparatus is necessary. Scientific speculation is a great lever, but it must be controlled by experiment, speculation must be tested by experiment, for the human mind is too apt to be seduced by the pleasure of speculative philosophy, and too prone to abandon the paths of observation and sound induction. From the want of apparatus and the ignorance of its different modes of manifestation, electricity as a therapeutic agent was seized upon by the charlatan and neglected by intelligent practitioners of medicine. By a curious coincidence the discoveries of electric science and improved apparatus was accompanied by great discoveries in regard to the functions of the nervous system. Whilst Oersted, Ampère, Faraday and others were making rapid strides in electric science, Sir Charles Bell, Magendie, Marshall Hall, Claude Bernard, Brown-Séquard and others were unravelling the intricacies of the nervous system. In no era of the world has there ever been such activity in scientific investigations, and the applications of science to the material comfort and welfare of mankind. At last the votaries of medicine contribute their quota, and many of the most eminent of the profession are devoting their talents and energies to the therapeutical effects of electric force in the treatment of diseases.

Electricity in suspended vital functions.—We have been induced to try the effects of electricity in cases of suspended vital function resulting from narcosis, and cases of apparent death from drowning, from experiments upon living rabbits, made by Sir Wilson Phillips, of England, from which it appears that electric force was used to substitute nerve power. The pneumogastric nerve of the animal was severed immediately after it had eaten some parsley. After the death of the animal, which had great difficulty of breathing, and perished apparently from suffocation, the stomach was opened and the parsley found undigested. A similar experiment of section of pneumogastric nerve was made, but a current of galvanism passed along the nerve, and continued for 26 hours

No difficulty of breathing occurred as long as the current was kept up The animal was killed, the stomach examined, the parsley was completely digested It thus appeared that galvanic energy is capable of supplying nervous influence in that the process of digestion may be carried on Similar experiments were made upon dogs with like results

Influence of Anæsthesia on Vaso-motor Forces of the Circulation—The following experiments by Drs Bowdich and Minot illustrate the influence of anæsthetics on vaso motor centres

Anæsthetics, in producing insensibility, have accomplished such results by antagonizing the effects of irritation of sensitive nerves One of the most constant physiological results of irritation of a sensitive nerve is a rise of arterial tension, due to a reflex stimulation through the vaso-motor centres of the muscular walls of the smaller arteries, especially those of the intestines It is ascertained that in the majority of cases, the rise of blood tension consequent upon the irritation of the saphenous nerves, is less marked when the animal is under the influence of ether, than when the anæsthetic is not used The first object was to determine the effects of anæsthesia on the reflex rise of the blood tension This was accomplished in the following manner An animal being placed on the operating table in the supine position, a solution of curari was injected into the jugalar vein, when paralysis ensued When the respiratory movement ceased, the trachea was connected by means of a glass canula inserted into it with the apparatus for artificial respiration, which was so adjusted as to imitate as closely as possible the normal respiratory rhythm A canula was then placed in the carotid artery and connected with a mercury manometer, carrying a pen by means of which the blood tension was recorded on a long strip of paper, which was kept in uniform motion by clock-work The saphenous nerve was then placed upon electrodes The irritation of the nerve was produced by closing the currents, by means of a key provided with a pen, thus recording the blood tension, which could be seen at a glance After the anæsthetic had been administered the nerve was again irritated Then the blood tension was notably decreased, and so continued to be as long as these experiments were tried

But far more constant and obvious were the results obtained from chloroform Here the irritation of the saphenous nerve caused a less marked rise in the blood tension, and sometimes there was no rise whatever These facts present to my mind the clearest evidence in favor of the electrical remedy in cases of deep chloroform toxæmia, and the propriety of having accessibility to a Faradic instrument, complete and ready for immediate use in chloroform administrations

E Du Bois-Reymond, "first succeeded in demonstrating the presence of specific muscle and nerve currents by deflection of the magnetic needle" He likewise ascertained that, "if the muscle or nerve be excited by electric currents, or by mechanical or chemical irritants, so that the first is physiologically active, and the latter caused to contract, and then placed at two symmetrical points in connection with the galvano multiplier, a less deflection of the needle is produced than when the nerve or muscle is in a quiescent state This is called the negative variation of the current" The conclusion arrived at by Du Bois Reymond was, that nerve and muscle contain innumerable positive and negative electric molecules which move with great regularity throughout the tissue Perchance the power of electricity in cases of suspended animation is to restore the suspended electrical forces of the body to a normal condition, and thus reanimate failing vitality

The effect of chloroform, the resuscitation of the still born, and of the tranced, and of the inert uterus in post partum hæmorrhage, may be remedied in much the same way, that is to say, by appealing to the vaso-motor centres through the pneumogastric axis

No nervous centre can act of its own motion or originate action It must be excited to action We might as well speak of sight without the action of the waves of the luminous ether, or sound without the vibration of sonorous substances In investigation medicine has called to her aid other physical sciences Natural philosophy has furnished the explanation of the mechanical contrivances, and we look to mechanics, hydraulics, and pneumatics to aid us to interpret the phenomena of locomotion, circulation, and respiration It has furnished in electricity the probable means of interpretation of the force which operates the mechanism, the phenomena of the nerve power, she has furnished the microscope to enable us to see things invisible to the naked sight, whilst chemistry has laid before us the knowledge of the fluids of the body, and enabled us to solve the mysteries of digestion These sciences have been called the hand maids of medicine, they are in fact parts of the whole, without them no physiology, without physiology no art of medicine

But with scalpel, microscope, and chemistry, we fail to delineate the anatomy of the nervous system It is a truth that, that which is is but the sequence of that which was The results of to day could not be had without the investigations of yesterday In like manner will the knowledge of to day be the basis of the conclusions of to-morrow—such is the law of intellectual development, such is the sequence of scientific advancement Sir Charles Bell first showed that the nerves of the human organization are distributed with regularity It is the basis of the physiology of the nervous system He first called attention to the functions of the spinal nerves, pointed out their different structures and their different functions, distinguished the sensory and the motor Marshall Hall succeeded Bell, and we had his excito motor system Others succeeded Hall to explain nervous phenomena, among whom stands preeminent the great Claude Bernard

But we owe more to Marshall Hall than the explanations he has given of nervous phenomena He demonstrated that when the scalpel and the microscope fail, to determine its anatomy, we can yet map out the anatomy of the system A physiological fact is as certain an indication of nervous distribution, as though we could follow its ramifications scalpel in hand or microscope to eye Observation and experiment is the thread which leads out of the labyrinth, without which we must be lost in its intricate mazes Marshall Hall has given us a map of the excito motor system of nerves, Bernard has shown their peripheral distribution The functions of the brain and spinal marrow are to be laid before us by pursuing the same line of investigation By experiment the number of devoted investigators give an earnest promise that the science of life may yet be illustrated, that the opprobrium that medicine is only the empiricism may be expunged, and that the day will yet arrive when medicine will be practised upon laws or principles known and recognized

The whole forms a beautiful piece of mechanism, whereby under the orders of certain nerve centres it is set in motion Blood flows in by the arteries regulated by the vaso motors, the veins receive it, and dilate under the direction of the vaso dilators, the muscular bands are brought into play by the nerve power conveyed to them, the result being what we call full nutrition When nerve power is exhausted or its exaltation diminishes, muscles relax, veins contract, the parts are freed from blood As a typical illustration of voluntary force we will cite its influence on the heart's action—say for seventy years—and, for convenience, fix the pulsations at sixty per minute Then we will have the proposition that $60 \times 60 = 3{,}600$ beats per hour Again, $3{,}600 \times 10 = 36{,}000$ beats in ten hours, or, in the words of the learned Draper, this little organ can execute "three thousand million beats without a stop, and propel a half million tons of blood, and momentarily wasting, repairs its own waste all this time"

The mathematical rhythm of four moving cavities, the perfect closure of its mitral and semi-lunar valves, and the regurgitating play of its tricuspid, have never failed Much more could be said of other vital organs, under the control of the involuntary force In the face of all these facts, how strikingly true is the saying, "How fearfully and wonderfully we are made," for, in regard to the heart, we have but to note that its nerve supply springs principally from three little ganglia, and a few nerve fibres originating from the brain, spinal and sympathetic How delicate the source, how fragile and thread like the conductors, how readily implicated, how sudden and certain the result Yet, in death from such a cause, how obscure the character of the lesion!

THE TREATMENT OF DISEASES BY THE HYPODERMATIC INJECTION OF OILS[1]

BY JOHN V SHOEMAKER, A M, M D,

OF PHILADELPHIA

Experimental and clinical observations have taught us that oils when they cannot be swallowed, or are rejected by the stomach, can be absorbed by inunction and subcutaneous injection, and numerous instances of the absorption and assimilation of oil and fat by the skin have been reported, and their value in certain conditions, employed in this way, has been fully recognised But the more rapid and effective use of these agents subcutaneously, while known, has had little or no practical application

Menzel[1] and Perco first demonstrated the subcutaneous absorption of fat by injecting an ounce of it in a fluid state, under the skin of a dog, and in the course of forty eight hours it disappeared, without leaving any local effect The first practical application of this discovery was probably made by Krueg on an insane patient who refused to eat Subcutaneous injections of olive oil, twice daily, were then administered, affording sufficient nourishment to keep the patient in good bodily vigor At the end of a month he was induced to take his food in the natural way, and the injections were discontinued

Shortly after this announcement of the practical effects in Krueg's case, a most important result from hypodermatic alimentation in a case of gastric ulcer was reported by Dr James T Whittaker, of Cincinnati, Ohio According to Dr Whittakers report,[3] after exhausting other medication the patient was given subcutaneous injections of drachm doses of milk, alternated with beef extract, every two hours for three days The temperature declined, the pulse became stronger, and the existing pains and delirium disappeared The milk and beef extract not being well borne by the skin, cod liver oil was substituted for them, two drachms being given every two hours for two days, and one day as much as eight ounces was introduced Two abscesses formed from the milk, but not any ill effects followed from the oil, which was not only well borne, but its introduction was also free from pain The inability of some of my patients to bear medicine taken into the stomach induced me, a few years ago, to test thoroughly the subcutaneous absorption of oil, and the effects which followed in some few of the cases under treatment

Case 1 —Constipation —Miss M, aged 43, was confined to her bed after an operation for cancer, bowels became sluggish, stomach irritable, and all efforts at evacuation failed for six days On the morning of the seventh day two drachms of castor oil was mixed with an equal quantity of oil of sweet almonds, in order to make the oil sufficiently fluid for use, with a large hypodermatic syringe the injection was deposited into the subcutaneous cellular tissue of the back An hour afterwards the patient complained of pains through the limbs, which continued to increase until a copious evacuation took place, an hour and a half elapsing from the giving of the injection to the evacuation, and another passage succeeding in a brief period

Case 2 —Obstinate Constipation,—I was called to see a young man, eighteen years of age, suffering with nausea and vomiting, bowels had not been moved for nine days Administered the ordinary remedies, which failed to act At the end of forty-eight hours gave two drachms of castor oil, diluted as before described, hypodermatically In the course of three hours a free movement from the bowels followed, and the patient was as well as usual in a few days

---

[1] Read before the Section of Practical Medicine Materia Medica and Therapeutics at the Thirty Sixth Annual Meeting of the American Medical Association

[1] Wiener medizinische Wochenschrift April 17 1869

[2] Wiener medizinische Wochenschrift August 21 1875

[3] Hypodermic Alimentation by Dr James T Whittaker M D Cincinnati Clinic Jan 22 1876

Case 3—*Scrofula*—R C, negro, aged 23, had a number of enlarged lymphatic glands around the neck, with several open ulcers Hypodermatic injections of two drachms of cod liver oil, twice daily, for four weeks, lessened the size of the enlarged glands, healed up the ulcers, and caused the patient to increase in weight The usual food by the mouth was allowed during the treatment

Case 4—*Syphilis*—Mrs G, aged 37, very anæmic, was brought to the Skin Hospital by her physician Tongue large, coated and flabby, complained greatly of dyspepsia and general debility Several tubercles and infiltrated patches of syphilis were well developed on the face Mercury and the potassium iodide had been administered at different times alone, with the effect of increasing the discomfort of the patient, and completely taking away all desire for food Cod liver oil was recommended subcutaneously, four drachms being given every day, in addition to the regular meals At the end of two weeks the improvement was marked and in seven days more the cod liver oil was discontinued, and the patient put upon small doses of the iodide of mercury, which rapidly completed the cure

Case 5—*Eczema*,—This patient was an anæmic man, aged 39, whose anus was covered with extensive patches of eczema, the infiltration being particularly severe on the flexor surfaces The itching was very obstinate, and little could be done to relieve it He had been thus afflicted for eleven years Pulse weak, appetite poor, digestion bad, with more or less constipation The patient was intelligent, and carefully described the different methods of treatment that he had undergone He was placed in the Skin Hospital, and two drachms of cod liver oil was administered subcutaneously three times daily, and an ordinary dressing was applied to the patches He rapidly showed signs of responding to the treatment Skin became lighter and more natural at the end of four weeks, and the eruption became less annoying and lighter in color During this period he was kept on good, substantial diet, and at the end of the fourth week tonics were given, and by the middle of the following month, just forty two days from the time of his admittance to the hospital, he was discharged cured

Case 6—*Paræsthesia, or Perverted Sensibility of the Skin*—R M, a man of 69 years of age, had been under treatment for four years at various dispensaries and hospitals for an unbearable itching sensation of the skin of the entire body, only obtaining, at short intervals, temporary relief When he came under my care the patient stated to me that worms were wriggling around in the skin, occasionally he thought they came out and ran over the surface, and almost set him wild with the horrible feeling that was caused by them "When they begin to bore, and then crawl around," he added, "I tear the skin violently" The surface of the integument revealed only abrasions resulting from the scratching and rubbing The disease was recognised as dependent upon a disordered state of the nervous system The usual and unusual remedies were all tried, but with no success When almost bordering on despair for a remedy, subcutaneous injection of two drachms of cod-liver oil was resorted to twice daily for a period of twelve days, when the patient pronounced himself much better In three weeks the unpleasant sensations vanished, and in about thirty days he was discharged cured

The cases referred to are but a few of the many that I have successfully treated by oil hypodermatically administered, alone or in conjunction with other suitable means The laxative action of castor oil, alluded to in the cases cited, has again and again been verified on many patients affected with constipation It might also be advisable, in cases of apoplexy, to test the effect of a more active purgative oil by placing it beneath the skin, in the form, for instance, of the cathartic principle of croton oil Not only has the rapid and good purgative result of oil used hypodermically been thus demonstrated, but its nutritive action, when thus applied, has been shown to be valuable in debility, dyspepsia, scrofula, tuberculosis, and in certain diseases of the skin and nervous systems It is the quickest and best method of introducing oil into the system It is an invaluable means of combating disease, particularly in the class of cases just enumerated, where more nutrition is required, and also for those patients who are either unable to swallow oil, or who cannot absorb and assimilate it by the alimentary canal Oil can be used subcutaneously, alone or combined with other suitable agents that can be easily dissolved in it It is a valuable menstruum for suspending in it other drugs for hypodermatic use It can be given in connection with a suitable diet, and even with other medication by the mouth, or it can be used alone for alimentation Oil deposited in this way in the tissues is absorbed, and is no doubt assimilated, and will alone keep up the nutrition of the body It will at times arrest or assist in relieving scrofula, and will benefit tuberculosis It is especially useful in diseases of the alimentary canal, as well as in all affections depending upon deficient nutrition It will very often overcome an impoverished state and give tone and vigor to the system

For a purgative action one or two injections of a drachm or two of castor oil usually suffices, but for a nutritive effect, the same quantity of one of the bland nourishing oils, *e g*, cod-liver or olive oil should be administered two or three times daily In the event that alimentation is depending solely upon the injections they should be given about every two hours

For the purpose of giving oil hypodermically, a large syringe provided with a needle of good calibre should be used, and the instrument should have a capacity of from two to eight drachms The injections can be made in almost any part of the body, well provided with subcutaneous cellular tissue, into which the oil should always be thoroughly deposited The points usually selected for the injections are the su perior and inferior scapular and sacral regions, on account of the subcutaneous cellular tissue being especially abundant there Injections can also be made in the arms, the chest, the back, the buttocks and the legs There is more or less irritation at the point of puncture of the skin, about the same as will be seen from the use of almost any hypodermatic injection Sometimes there will also be some attending smarting and burning followed always with redness and swelling, or the formation of a nodular elevation which usually disappears in from twelve to forty eight hours, No induration or inflammation follows the injections, provided the usual precautions are observed in using the hypodermic syringe properly, and the tissues of the person receiving it are in the normal condition Oil has been so injected by me in very many cases, occasionally as much as one-half ounce being used at a time, without setting up any inflammation of the skin, or producing any unfavorable effects

The results thus far realized show that by the hypodermatic injection of oils, certain conditions and diseases can be controlled, relieved or cured It is an invaluable method in which full dependence can be placed, especially when the alimentary canal can no longer absorb and assimilate food or medicine

A NEW COMBINED TROCAR AND CANULA AND ASPIRATING NEEDLE[1]

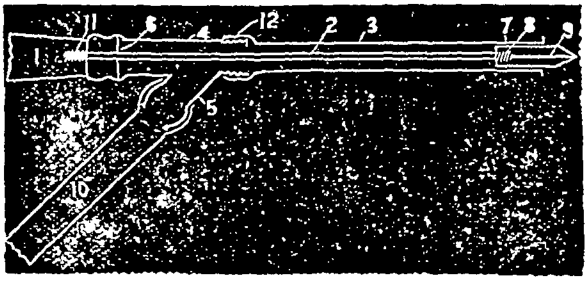
BY H LANDIS GETZ, M D,

OF MARSHALLTOWN IOWA

The common or simple trocar and canula has certain disadvantages, inconveniences or defects, as one may please to term its shortcomings One is the fact that we have no positive means of knowing just when the instrument is plunged properly, or to a sufficient depth, into the cavity, except by the amount of resistance encountered, unless the trocar is withdrawn from the canula, when, if we happen to have properly entered the cavity, no inconvenience will result If we have not, it may be necessary to re introduce the trocar and try again—a more or less bungling operation

Another objection is the fact that in the event of desiring to use a rubber tube, either as a matter of convenience or otherwise, we can only, or rather we are obliged to make the attachment to the canula after the trocar has been withdrawn This is quite inconvenient in some cases, especially would it be so if we desired to evacuate an abscess high up through the vagina Air would also be more likely to enter the cavity than by the use of the new device

The objections to the common *aspirating* or *exploring needle* are, either that we have no tube attachment, or that we require a regular aspirating outfit, which means more or less expense Another objection is the inability to remove the sharp or cutting portion of the needle after the cavity has been entered, consequently, as the cavity is being emptied, there is considerable danger of injuring or perforating the opposite surfaces, as in removing the effusion In case of pericarditis there would be danger of wounding the heart



The figure represents the trocar and canula, one half full size, with tube attached ready for use 1 Handle of wood, 2 Stylet, which screws into handle at 11 and at 8 into short trocar point, 3 Canula which screws on handle portion of canula at 12, 4 Handle portion of canula, 5 Part of handle portion of canula to which the rubber is attached, 6 Rubber disc making the canula air tight, 7 Perforation in canula for the admission of fluid, which indicates the entrance of trocar into the cavity, 8 Trocar point screws on stylet 9 Trocar point, 10 Rubber tube, 11 Stylet screws into handle, 12 Canula screws on handle portion of canula Parts 3 and 9 can be made of any size desired, and attached to 1, 2 and 4 The aspirating needle attaches to 1 at 11, and the canula for same attaches to 4 at 12

Seeing and realizing that these defects existed in the instruments in common use, I determined to overcome them as far as possible I now present (Fig) what I term a new combined "trocar and canula and aspirating needle," which, I believe, overcomes all the objections of the instruments now in use, and yet loses none of their advantages

PLACENTA PRÆVIA

BY H V SWERINGEN, A M, M D,

OF FORT WAYNE, IND

On Saturday morning, July 18th, 1885, Mrs C, a primapara, while engaged in shopping, was taken suddenly, without any premonitory warning, with a most profuse hæmorrhage, which, as the sequel will show, was uterine in character Her clothing was saturated with blood, and quite a pool of blood was discovered where she stood She was immediately placed in a carriage and driven to her residence, stopping on the way for her nurse to accompany her

I reached her bed soon after she was placed therein, and found she was yet flowing considerably Suspecting the nature of her situation, an examination revealed what is termed technically, *placenta prævia lateralis*

The presentation was the usual one, and the os uteri was dilated to about the size of a silver quarter dollar, dilatable, no pains I at once tamponed and administered ergot, which measures, while they checked at once the flow, did not absolutely control the oozing In the course of a few hours pains came on, when I removed the tampon, and, forming my fingers and thumb in the shape of a cone and introducing them into the os, had nothing else to do but to expand them to effect almost complete dilatation, so readily did the os yield Whether to turn and deliver at once or to rupture the membranes and allow the head to engage and proceed as in an ordinary labor, was now with me the question I chose the latter course As soon as the liquor amnii escaped the head engaged, and, by its pressure, stopped all hæmorrhage I now assured the patient that so far as *she* was concerned I considered her danger passed, and on account of the progress she was now making toward a speedy delivery, I had great hopes for the babe From this time on her labor progressed naturally enough, indeed more rapidly than is the case with the majority of primaparæ Probably an hour had not elapsed when the head rested upon the perineum The idea of employing the forceps never once suggested itself, because of the speedy progress of the case, and yet, when, in a short time after the head began to distend the perineum, the child was delivered, it was born dead, not the slightest evidence of life could be detected, it had undoubtedly been dead for some time During my first examination, however, its activity was a subject of remark The cord was around its neck, but this fact alone is insufficient to account for its death, there must have been pressure exerted upon it by the child's head soon after it became engaged in its route through the pelvis

---

[1] Read in the Section of Anatomy and Surgery at the Thirty Sixth Annual Meeting of the American Medical Association

Now, every case has its lesson to impart, as has every story its moral In the one before us, I am certain I could have saved the babe had I either turned and delivered, or applied the forceps the moment I broke the water, neither of which procedures, however, seemed nor were they necessary as aids to the mother in giving birth to the child A resort to either measure in this case would with great reason be considered "meddlesome midwifery" by those in attendance, and yet either one would undoubtedly have saved the life of the babe What is the obstetrician to do under these circumstances? Will some one answer? At this writing the mother is doing nicely, and would no doubt have done just as well had either the methods of delivery above suggested been adopted

Fort Wayne, Ind, Aug 10, 1885

MEDICAL PROGRESS

ANATOMY AND PHYSIOLOGY

The Pneumonia-Coccus of Friedlander —At the close of a valuable paper on this subject, Dr George M Sternberg draws the following conclusions

The pneumonia coccus of Friedlander is identical specifically with the micrococcus previously described by me, and which is commonly found in normal human saliva The capsule, or mucous envelope, which sometimes surrounds this micrococcus, described by Friedlander in 1883, and photographed by me two years previously, cannot be accepted as a distinguishing character of this species, inasmuch as it is not constantly present, and the circumstances upon which its development depends have not been accurately determined It is established that this is a pathogenic organism, as far as certain lower animals are concerned, and that its pathogenic power varies under different circumstances It seems extremely probable that micrococci are concerned in the etiology of croupous pneumonia, and that the infectious nature of this disease is due to its presence in the fibrinous exudate into the pulmonary alveoli

But this cannot be considered as definitely established by the experiments which have thus far been made upon lower animals The constant presence of this micrococcus in the buccal secretions of healthy persons indicated that some other factor is required for the development of an attack of pneumonia, and it seems probable that this other factor acts by reducing the vital resisting power of the pulmonary tissues, and thus making them vulnerable to the attacks of the microbe This supposition enables us to account for the development of the numerous cases of pneumonia which cannot be traced to infection from without The germ being always present, auto infection is liable to occur when from alcoholism, sewer gas poisoning, crowd-poisoning, or any other depressing agency the vitality of the tissues is reduced below the resisting point We may suppose also that a reflex vaso motor paralysis, affecting a single lobe of the lung, for example, and induced by exposure to cold, may so reduce the resisting power of the pulmonary tissue as to permit this micrococcus to produce its characteristic effects

Again, we may suppose that a person, whose vital resisting power is reduced by any of the causes mentioned, may be attacked by pneumonia from external infection with material containing a pathogenic variety of this micrococcus having a potency, permanent or acquired, greater than that possessed by the same organism in normal buccal secretions —*Am Jour Med Sc*, July, 1885

Amount of Pepsin in Gastric Juice in Normal and Pathological Conditions of the Stomach —Dr E Schutz, as the result of very careful examinations, draws the following conclusions The gastric juice, obtained by means of a tube from the healthy empty stomach, contains, as a rule, pepsin, the amount of which varies very little in the same individual at different times, but in different individuals it varies between 4 and 1 2 units Where the stomach is diseased, the pepsin obtained, under similar conditions as in the healthy person, is much less, as a rule, and may even be altogether absent in severe cases, or those that have lasted for some time In less severe cases there was also observed some diminution of the pepsin In nervous dyspepsia there is little or no change in the amount of this substance present also the same was noted in the dyspepsia of anæmic and chlorotic patients, and even in those suffering from tuberculosis A normal or only slightly decreased amount of pepsin is almost always accompanied by a strongly acid reaction of the gastric juice, whilst if the amount is much decreased, or there is none at all present, the reaction is, as a rule, alkaline, neutral, but feebly acid —*Deutsche medi-Zeitung*, May 4th, 1885 —*Bristol Med Chir Journal*, June, 1885

Power of Milk, taken from an Animal suffering from Splenic Fever, to Communicate the Disease to others —Messrs Chambrelent and Moussons, writing to the *Revue fur Thierheilkunde*, June, 1884, on this important matter, give the results of some experiments made by them

Feser of Munich, in the year of 1879, said that the milk of an animal suffering from splenic fever contained the infectious substance, and the following experiments of Messrs C and M confirm this statement

1 A Guinea-pig that had had a litter ten days previously was inoculated with the cultivated virus of anthrax, as a result of which it died in the course of a day An hour after its death, a drop of milk was removed from it, and cultivations were made in beef bouillon A guinea pig that was inoculated with a droop of this cultivation fluid died after two days, and in its blood the bacillus anthracis was found A second guinea-pig, which had been inoculated, died during the next day

2 A similar experiment, using the same methods but not the same animals, resulted in the death of two guinea pigs

3 With the same virus as used in experiment No 2, a rabbit, which was yielding milk at the time, was inoculated, but it remained healthy, and its milk did not produce anthrax bacilli on cultivation —*Deutsche mediz Zeit*, *No 56*—*Bristol Med Chir Journal*, June, 1885

MATERIA MEDICA AND THERAPEUTICS

Physiological Action of Cocaine —M Arloing has recently forwarded a long communication to the Biological Society on cocaine He has made a lengthy series of careful researches on the physiological action of cocaine, which lead him to draw the following conclusions The chlorhydrate of cocaine is a purely local anæsthetic Contact of the nerve-ending plate with cocaine is the principal cause of anæsthesia Cocaine provokes constriction of the capillary vessels, but M Arloing does not think that the corneal insensibility produced by cocaine ought to be attributed to regional anæmia, inasmuch as anæsthesia can be produced before and after the section of the cervical branch of the sympathetic The anæsthetic effects of cocaine salts are very evident on epithelial mucous membranes, on one especially in which the nerve terminations are intra epithelial—the corneal membrane, thus it may be argued that anæsthesia depends on contact, which is not affected by the local circulation In the more important nerves, where the nerve elements are protected by the perepheral connective tissue and the lamella sheaths, anæsthesia is produced more slowly, so slowly as sometimes to escape observation

Interstial injections of cocaine anæsthetize small nerves, as is proved by the enucleation of the eyeball A solution of cocaine deposited on the surface of the eye slowly penetrates through the epithelium, the nerve terminations are impregnated, traverses the cornea, circulates in the lymphatics of the eye and aqueous humour, bathes the iris and finally passes into the circulatory system and kills the guinea-pig M Arloing concludes, from his experiments, that salts temporarily modify the physical properties of protoplasma, the elements of nerve terminations, also fibullar elements M Brown Séquard believes that the anæsthetic effect of cocaine is due to inhibitory phenomena In a communication to the Biological Society he stated that the fact that wounds became anæsthetised when the animal's larynx is irritated by carbolic acid, chloroform, or galvanization, suggested to him that the action of cocaine is inhibitory By slightly irritating his own laryngeal mucous membrane he relieves a feeling of intense fatigue, and also removes rheumatic pain. He injected chlorhydrate of cocaine along the superior laryngeal nerve, all the wounds made the previous day were anæsthetised, the sciatic nerve was stretched without producing the slightest pain An analgesic zone exists around each wound, the wounds made after the application of cocaine were hyperalgesic M Brown-Séquard therefore refuses to admit the anæsthetic properties of cocaine, and further asserts that if a large dose is injected the poisonous properties of cocaine prevent the anæsthetic phenomena

A New Ether —M Rabuteau has prepared a new ether, the salicylate of methyl It is almost white, boils at 222° C, has an agreeable smell, and is almost insoluble in water It is prepared by treating methylic alcohol with salicylic acid or sulphuric acid, or even a better formula is that of sodium salicylate, sulphuric acid and alcohol It is not a saturated ether, it is a meno ethyl, and therefore almost an acid, and forms salts in presence of an alkali It colors salts of iron violet, and behaves like salicylate of soda in the presence of urine This ether does not produce thorough anæsthesia, and its effect is obtained by administering injections combined with inhalations Part of the dose of salicylate of methyl is utilized in the organism, and part eliminated by the respiratory and renal organs The vapor of salicylate of methyl exhaled is easily detected by being brought into contact with iron perchloride

MEDICINE

The Knee-Reflex in Diphtheria and its Sequelæ, and in Diabetes Mellitus —Bernhardt has for some years given considerable attention to this subject, as concerns diphtheria, and in a recent communication (*Archiv fur Pathologische Anatomie und Physiologie, und fur klinische Medicin*, March, 1885), he advances the following conclusions 1 In a very great number of patients who have suffered from diphtheria (of the throat and pharynx), the reflex disappears after the lapse of some weeks from the date of illness 2 This disappearance, although more common in severe cases which have been followed by paralytic affections, is not confined to them, but is found in mild cases which have no such sequelæ 3 The "Westphal's phenomenon" may not appear until two months from the date of the onset of the diphtheria, but it may have appeared and vanished within three weeks from the onset of the date of allow the head to engage and proceed as in an ordinary labor, was now with me the question I chose the latter course As soon as the liquor amnii escaped the head engaged, and, by its pressure, stopped all hæmorrhage I now assured the patient that so far as *she* was concerned I considered her danger passed, and on account of the progress she was now making toward a speedy delivery, I had great hopes for the babe From this time on her labor progressed naturally enough, indeed more rapidly than is the case with the majority of primaparæ Probably an hour had not elapsed when the head rested upon the perineum The idea of employing the forceps never once suggested itself, because of the speedy progress of the case, and yet, when, in a short time after the head began to distend the perineum, the child was delivered, it was born dead, not the slightest evidence of life could be detected, it had undoubtedly been dead for some time During my first examination, however, its activity was a subject of remark The cord was around its neck, but this fact alone is insufficient to account for its death, there must have been pressure exerted upon it by the child's head soon after it became engaged in its route through the pelvis

Now, every case has its lesson to impart, as has every story its moral In the one before us, I am certain I could have saved the babe had I either turned and delivered, or applied the forceps the moment I broke the water, neither of which procedures, however, seemed nor were they necessary as aids to the mother in giving birth to the child A resort to either measure in this case would with great reason be considered "meddlesome midwifery" by those in attendance, and yet either one would undoubtedly have saved the life of the babe What is the obstetrician to do under these circumstances? Will some one answer? At this writing the mother is doing nicely, and would no doubt have done just as well had either the methods of delivery above suggested been adopted

Fort Wayne, Ind, Aug 10, 1885

MEDICAL PROGRESS

ANATOMY AND PHYSIOLOGY

The Pneumonia-Coccus of Frildlandlr —At the close of a valuable paper on this subject, Dr George M Sternberg draws the following conclusions

The pneumonia-coccus of Friedlander is identical specifically with the micrococcus previously described by me, and which is commonly found in normal human saliva The capsule, or mucous envelope, which sometimes surrounds this micrococcus, described by Friedlander in 1883, and photographed by me two years previously, cannot be accepted as a distinguishing character of this species, inasmuch as it is not constantly present, and the circumstances upon which its development depends have not been accurately determined It is established that this is a pathogenic organism, as far as certain lower animals are concerned, and that its pathogenic power varies under different circumstances It seems extremely probable that micrococci are concerned in the etiology of croupous pneumonia, and that the infectious nature of this disease is due to its presence in the fibrinous exudate into the pulmonary alveoli

But this cannot be considered as definitely established by the experiments which have thus far been made upon lower animals The constant presence of this micrococcus in the buccal secretions of healthy persons indicated that some other factor is required for the development of an attack of pneumonia, and it seems probable that this other factor acts by reducing the vital resisting power of the pulmonary tissues, and thus making them vulnerable to the attacks of the microbe This supposition enables us to account for the development of the numerous cases of pneumonia which cannot be traced to infection from without The germ being always present, auto infection is liable to occur when from alcoholism, sewer gas poisoning, crowd-poisoning, or any other depressing agency the vitality of the tissues is reduced below the resisting point We may suppose also that a reflex vaso motor paralysis, affecting a single lobe of the lung, for example, and induced by exposure to cold, may so reduce the resisting power of the pulmonary tissue as to permit this micrococcus to produce its characteristic effects

Again, we may suppose that a person, whose vital resisting power is reduced by any of the causes mentioned, may be attacked by pneumonia from external infection with material containing a pathogenic variety of this micrococcus having a potency, permanent or acquired, greater than that possessed by the same organism in normal buccal secretions —*Am Jour Med Sc*, July, 1885

Amount of Pepsin in Gastric Juice in Normal and Pathological Conditions of the Stomach —Dr E Schutz, as the result of very careful examinations, draws the following conclusions The gastric juice, obtained by means of a tube from the healthy empty stomach, contains, as a rule, pepsin, the amount of which varies very little in the same individual at different times, but in different individuals it varies between 4 and 1 2 units Where the stomach is diseased, the pepsin obtained, under similar conditions as in the healthy person, is much less, as a rule, and may even be altogether absent in severe cases, or those that have lasted for some time *In* less severe cases there was also observed some diminution of the pepsin In nervous dyspepsia there is little or no change in the amount of this substance present also the same was noted in the dyspepsia of anæmic and chlorotic patients, and even in those suffering from tuberculosis A normal or only slightly decreased amount of pepsin is almost always accompanied by a strongly acid reaction of the gastric juice, whilst if the amount is much decreased, or there is none at *all* present, the reaction is, as a rule, alkaline, neutral, but feebly acid —*Deutsche mediz Zeitung*, May 4th, 1885 —*Bristol Med Chir Journal*, June, 1885

POWER OF MILK, TAKEN FROM AN ANIMAL SUFFERING FROM SPLENIC FEVER, TO COMMUNICATE THE DISEASE TO OTHERS —MESSRS CHAMBRELENT and MOUSSONS, writing to the *Revue fur Thierheilkunde*, June, 1884, on this important matter, give the results of some experiments made by them

Feser of Munich, in the year of 1879, said that the milk of an animal suffering from splenic fever contained the infectious substance, and the following experiments of Messrs C and M confirm this statement

1 A Guinea pig that had had a litter ten days previously was inoculated with the cultivated virus of anthrax, as a result of which it died in the course of a day An hour after its death, a drop of milk was removed from it, and cultivations were made in beef bouillon A guinea pig that was inoculated with a droop of this cultivation fluid died after two days, and in its blood the bacillus anthracis was found A second guinea-pig, which had been inoculated, died during the next day

2 A similar experiment, using the same methods but not the same animals, resulted in the death of two guinea-pigs

3 With the same virus as used in experiment No 2, a rabbit, which was yielding milk at the time, was inoculated, but it remained healthy, and its milk did not produce anthrax bacilli on cultivation —*Deutsche mediz Zeit*, *No 56* —*Bristol Med-Chir Journal*, June, 1885

MATERIA MEDICA AND THERAPEUTICS

PHYSIOLOGICAL ACTION OF COCAINE —M ARLOING has recently forwarded a long communication to the Biological Society on cocaine He has made a lengthy series of careful researches on the physiological action of cocaine, which lead him to draw the following conclusions The chlorhydrate of cocaine is a purely local anæsthetic Contact of the nerve-ending plate with cocainé is the principal cause of anæsthesia Cocaine provokes constriction of the capillary vessels, but M Arloing does not think that the corneal insensibility produced by cocaine ought to be attributed to regional anæmia, inasmuch as anæsthesia can be produced before and after the section of the cervical branch of the sympathetic The anæsthetic effects of cocaine salts are very evident on epithelial mucous membranes, on one especially in which the nerve terminations are intra-epithelial—the corneal membrane, thus it may be argued that anæsthesia depends on contact, which is not affected by the local circulation In the more important nerves, where the nerve elements are protected by the perepheral connective tissue and the lamella sheaths, anæsthesia is produced more slowly, so slowly as sometimes to escape observation

Interstial injections of cocaine anæsthetize small nerves, as is proved by the enucleation of the eyeball A solution of cocaine deposited on the surface of the eye slowly penetrates through the epithelium, the nerve terminations are impregnated, traverses the cornea, circulates in the lymphatics of the eye and aqueous humour, bathes the iris and finally passes into the circulatory system and kills the guinea-pig M Arloing concludes, from his experiments, that salts temporarily modify the physical properties of protoplasma, the elements of nerve terminations, also fibullar elements M Brown-Séquard believes that the anæsthetic effect of cocaine is due to inhibitory phenomena In a communication to the Biological Society he stated that the fact that wounds became anæsthetised when the animal's larynx is irritated by carbolic acid, chloroform, or galvanization, suggested to him that the action of cocaine is inhibitory By slightly irritating his own laryngeal mucous membrane he relieves a feeling of intense fatigue, and also removes rheumatic pain. He injected chlorhydrate of cocaine along the superior laryngeal nerve, all the wounds made the previous day were anæsthetised, the sciatic nerve was stretched without producing the slightest pain An analgesic zone exists around each wound, the wounds made after the application of cocaine were hyperalgesic M Brown-Séquard therefore refuses to admit the anæsthetic properties of cocaine, and further asserts that if a large dose is injected the poisonous properties of cocaine prevent the anæsthetic phenomena

A NEW ETHER —M RABUTEAU has prepared a new ether, the salicylate of methyl It is almost white, boils at 222° C, has an agreeable smell, and is almost insoluble in water It is prepared by treating methylic alcohol with salicylic acid or sulphuric acid, or even a better formula is that of sodium salicylate, sulphuric acid and alcohol It is not a saturated ether, it is a meno ethyl, and therefore almost an acid, and forms salts in presence of an alkali It colors salts of iron violet, and behaves like salicylate of soda in the presence of urine This ether does not produce thorough anæsthesia, and its effect is obtained by administering injections combined with inhalations Part of the dose of salicylate of methyl is utilized in the organism, and part eliminated by the respiratory and renal organs The vapor of salicylate of methyl exhaled is easily detected by being brought into contact with iron perchloride

MEDICINE

THE KNEE-REFLEX IN DIPHTHERIA AND ITS SEQUELÆ, AND IN DIABETES MELLITUS —BERNHARDT has for some years given considerable attention to this subject, as concerns diphtheria, and in a recent communication (*Archiv fur Pathologische Anatomie und Physiologie, und fur klinische Medicin*, March, 1885), he advances the following conclusions 1 In a very great number of patients who have suffered from diphtheria (of the throat and pharynx), the reflex disappears after the lapse of some weeks from the date of illness 2 This disappearance, although more common in severe cases which have been followed by paralytic affections, is not confined to them, but is found in mild cases which have no such sequelæ 3 The "Westphal's phenomenon" may not appear until two months from the date of the onset of the diphtheria, but it may have appeared and vanished within three weeks from the onset of the date of invasion 4 The reflexes frequently disappear on the one side before the other is affected, so that the knee phenomenon appears to be one-sided During the disappearance of the Westphal's phenomenon the return of the reflexes is also often at different times on the two sides 5 The reflexes may remain absent for a long time without any other sign of nervous change 6 These facts are of value in regard to testing the knee reflex in healthy persons, as after diphtheria a patient is not reckoned as healthy for five or six months 7 It has not been determined whether the knee reflex becomes altered at a later date than two months or if it remains healthy afterwards if unchanged within such a period 8 The skin and tendon reflexes do not show any parallelism in their presence or absence 9 Such investigations are only of value when the quadriceps is intact, no atrophy is present, and the muscular irritability has suffered no change

In diabetes mellitus, ROSENSTEIN (*Berlin Klin Wochensch*, No 8, 1885) comparing the particulars of cases observed with special reference to the knee phenomena, draws the following conclusions 1 In a number of diabetic cases the knee-reflex is permanently absent, and cannot be called back by subcutaneous injections of strychnine, as Schreiber has found to be the case in chronic alcoholism 2 The failure of this reflex stands in no relation to the amount of sugar in the urine, nor to the quantity of urinary contents giving the iron-chlorine reaction, nor to acetone, and cannot therefore be considered a toxic phenomenon 3 It is also independent of the general condition of the patients as to nourishment and bodily strength 4 So far as one post-mortem can be trusted, the disturbance of the reflex circuit, between the crural nerve and the lumbar cord, is functional and unconnected with organic alteration of the medulla Rosenstein does not incline to give much heed to this defect of patellar reflex, either in diagnosis or prognosis, but recognises in it merely another disturbance of innervation such as the paræsthesia, anæsthesia, neuralgia, and impotence, which are well known in diabetes —*Edinburgh Medical Journal*, July, 1885

INTRAVENOUS INJECTIONS OF LIQUOR AMMONIÆ IN CHOLERA —In the *Russkaia Meditzina*, No 8, 1885, p 157, DR JAKOV J TRUSEWICZ, of Cronstadt, recommends a trial of the intravenous injection of liquor ammoniæ (about three or four fluid pounds of water, containing from five to twenty drops of liquor ammoniæ to every six ounces) in the collapse and algide period of Asiatic cholera The transfusion of the ammoniated water in cholera would satisfy two indications, first, "it would augment the mass of the blood and neutralize an anomalous reaction of the latter," and, secondly, "being the best of all known analeptic means, liquor ammoniæ would stimulate the cardiac action " [*See* Dr Trusewicz's article in the *London Medical Record*, Feb, 1885, p 69 The author mentions three new instances illustrating the most powerful stimulating virtue of the hypodermic injection of five or seven drops of liquor ammoniæ in cases of apparently hopeless collapse In one of the cases, the injection revived a patient with enteric fever after musk and other usual stimulants had utterly failed In another case, in that of phthisis in the last stage, the author found the patient pulseless, deadly pale, cyanotic and delirious, in cold clammy perspiration, with stertorous breathing, reactionless pupils, and involuntary defæcation Two hypodermic injections, each of three drops of liquor ammoniæ, were made within twenty minutes, immediately after the second injection, the patient recovered consciousness, began to talk, and even joke, with his attendants, then fell asleep for five hours, and on the next morning heartily enjoyed his breakfast as if nothing had happened] The author also advises trial of the internal administration of liquor ammoniæ in in cholera cases In certain cases irritant baths of ammoniated water might prove of service Dr Trusewicz suggests, also, to give a trial to inhalations of oxygen as well as to systematic massage of the whole body, after Weir-Mitchell's plan —*London Medical Record*, July 15, 1885

COCAINE IN HAY FEVER —DR J WESTON BULL says that the eye does not seem to be protected against the irritating action of the pollen grain by two or three drops of a 2 per cent solution of hydrochlorate of cocaine, though the inflammation and itching, arising from the swelling and bursting of the grain, are allayed and removed by its use He is trying stronger solutions The violent sneezing and swelling of the mucous membrane of the nose, arising from the same cause, are removed by a few drops of a 1 per cent solution, sniffed off a camel's hair brush, so that, up to the present, he has been comparatively free from nasal symptoms

Probably the only way to ascertain the exact prophylactic effect, if any, of the cocaine, is to procure pollen which has a known irritating effect on the experimenter's conjunctiva, and to try its action on both eyes, having previously inserted solutions of varying strength into one of them, and these experiments he hopes to carry out

Apparently, as was anticipated, cocaine is at present our best topical application in the treatment of this distressing complaint, though Dr Bull found vaseline of great service last hay-season for the nose It certainly alleviates, and may be found prophylactic The only other effect on the eye is a slight smarting, soon wearing off, and a little dilatation of the pupil, lasting about twelve hours —*British Medical Journal*, July 4, 1885

THE PATHOLOGY OF HERPES ZOSTER —DUBLER, in *Virchow's Archiv* (vol xcvi, p 177), gives an account of two cases of herpes zoster in which he made a thorough anatomical and histological investigation In both he found distinct evidence of neuritis which extended to the cutaneous tings of the nerves, and he believes that the eruption is a true inflammatory one due to the extension of the inflammation from the nerve tings to the tissue of the skin He combats the view that the disease is a tropho neurosis depending on lesions in the ganglion of the posterior root, as he found these ganglia healthy in his cases

In one of his cases the inflammation of the nerves originated in a periostitis of three ribs, the corresponding intercostal series being affected. Another interesting point is that the neuritis extended somewhat into the muscular tings, just as other inflammations of nerves do, and in this connection it is very interesting that in several cases muscular paralysis has been associated with herpes, as in a case by Broadbent, where a herpes in the course of certain branches of the brachial plexus was associated with partial paralysis in the corresponding motor nerves, and one by Vernon in which with herpes zoster ophthalmicus, there was paralysis of the oculomotor nerve.—*Glasgow Medical Journal*, July, 1885.

SURGERY

ON RESECTION OF THE ANKLE.—In the *Bulletin de l'Academie Royale de Medecine de Belgique*, tome xviii, No. 12, DR. LIEBRECHT, of Liège, describes an operative procedure which he has recently devised for resection of the tibio tarsal articulation in cases of fungous arthritis. The methods that have hitherto been practised are all, he states, attended with much labor, in consequence of the difficulty in exposing and dividing the numerous ligaments of the ankle, and are apt to cause injury to the tendons, vessels, and nerves around the joint. The following is a description of the author's method, which, however, has up to the present time been performed only on the cadaver. The skin incision is made from the middle of the posterior border of one malleolus to the middle of that of the opposite malleolus. The tendo Achillis is then divided on a director. A second division, perpendicular to the first, is now made along the inner border of the tendo Achillis. This is about 2½ inches in length, and passing downwards, almost reaches the inner tuberosity of the calcaneum. The soft structures between the tendon and the bone are now dissected away, so as to expose the capsule of the joint and the posterior peroneo astragaloid ligament. On excision of these ligaments, the astragalus and the lower extremity of the tibia are exposed to view, and also the line of articulation between these bones, and below this, the astragalo-calcanean line. The tendon of the flexor longus pollicis is then displaced inwards from the posterior surface of the tibia, and all the tendons, vessels, and nerves situated behind the two malleoli can now be easily pushed forwards, so as to expose the whole of the posterior aspect of the joint. If the bones be hard, as is mostly the case in the cadaver, the posterior surface of the astragalus, at one of its borders near a malleolus, should be attacked with chisel and mallet. A notch should first me made along the whole width of the bone, so that by subsequent action of the chisel, the upper portion of the astragalus may be removed in one piece. If necessary, one or more slices of bone may be afterwards removed. The end of the tibia, if diseased, may be excised in a similar manner. If the diseased bone be very soft, it may be scooped away. The articular surfaces of the malleoli having been exposed, they may be scraped or removed with the chisel. The lateral ligaments may now be divided with a blunt-pointed bistoury. If any fragments of the astragalus remain adhering to the capsule or ligaments, they should be torn away with forceps. A large cavity is thus formed, at the bottom of which is found the articular capsule of the front of the foot, which may be readily scraped, or, if necessary, excised with scissors. If the loss of bone be not very great, and particularly if the malleoli have been partially preserved, the cavity may be left to become filled up by granulations, and then, after recovery, the patient will have a foot that is almost normal. When it has been found necessary to remove much bone, the opposed osseous surfaces of the leg and tarsus should be fixed together, so as to attain osseous ankylosis. Finally, the divided extremities of the tendo Achillis and edges of the external wound should be brought together by sutures.

Dr. Liebrecht claims for this operation the following advantages: "It does not cause any serious primary lesion, or necessitate any useless sacrifice, the soft parts and the periosteum are not bruised in the course of the operation. It offers more chances than the other methods of preserving a limb of normal form, and better assures the integrity of its functions. It may be easily and quickly performed. Owing to the position of the wound, the discharge of secretion will be effected without any difficulty, and the process of repair will be carried on much more rapidly."—*London Medical Record, July, 1885.*

ACUTE SUPPURATION AFTER FORCIBLE RUPTURE OF ARTICULAR ADHESIONS.—In the *Centralbl. fur Chirurgie*, No. 21, 1885, PROFESSOR M. OBERST reports four cases from the hospital practice of Volkmann, on which acute suppuration followed the breaking down of articular adhesions. In each of these cases, the ankylosis had followed an acute infective process. In two cases the primary affection was acute articular rheumatism, and in one the ankylosis was the result of acute infective osteomyelitis. In the fourth case, the nature of the primary affection could not be clearly made out, but there is no doubt, Oberst states, that it was some acute infective process. In two cases the suppuration caused by the breaking down of adhesions—in one in the cuticle, in the other in the knee—did not extend beyond the affected joint, whilst in the other two it was very extensive, and caused much disorganisation, necessitating amputation of the thigh in one of these instances, and causing death in the other. In the last case, which was one of ankylosis of the knee and deformity after acute rheumatism, forcible extension of the limb caused infraction of the inferior epiphysis of the femur, and was rapidly followed by acute and typical osteo-myelitis, with necrosis and formation of multiple abscesses in the medulla. Oberst thinks that the multiplicity of the abscesses, the character of the necrosis, and other morbid conditions in this case indicated that it was one of specific infective and not of simple septic osteo-myelitis, and it is suggested that it might have been due to the action of acute rheumatism. There can be no doubt, it is held, that in each of these four cases the suppuration set up by relatively slight force may be most readily explained by the supposition that, from the date of the primary acute affection during disease, germs had been left in the affected regions, and that, by the attempt to restore the functions of the joint, they had again been rendered mobile and placed under conditions favorable to the restoration of more active vitality In each case, the patient at the time of operation was quite healthy—except with regard to articular deformity—and free from fever, and in not a single instance did any abscess or fistula exist at this stage There could not, is stated, have been any infection from without, as the integument in each case was quite intact, and the extravasation of blood caused by the forcible movements of the joint did not reach the surface These cases, Oberst points out, should teach surgeons that they ought to be very cautious in attempting to break down ankyloses which have resulted from acute infective diseases In cases of this kind, a cutting operation would certainly be less dangerous than forcible rupture of the adhesions by simple manipulation In not one of the very numerous cutting operations that have been performed with orthopædic aims at the Oberst Hospital at Halle, has any instance been observed, Oberst states, of complication due to infection It is supposed that the micro organisms remaining after the primary disease find a much less favorable soil in the disinfected and antiseptically treated operation-wound, than in contused and lacerated tissues and in abundant or diffused extravasations of blood, conditions which often exist after forcible attempts to restore the functions of an ankylosed joint —*London Medical Record*, *July*, *1885*

Laparotomy for Ileus —Dr Edgar Kurz reports a case of laparotomy performed on account of intestinal obstruction The operation resulted in the complete recovery of the patient, and is interesting as being extremely rare in private practice

The patient, a man aged 33 years, twelve months previously had a severe attack of typhoid fever attended with numerous complications He recovered, however, and perfectly regained his health

In August, 1884, for the first time, he noticed a small hernia into the right inguinal canal which did not descend into the scrotum, and could easily be replaced within the abdominal canal October 23, 1884, Dr Kurz was summoned to the patient, and found him suffering severe abdominal pain, attended with vomiting Examination made at once, and the following day made it clear that the hernia was not the cause of the pain and vomiting Palpation of the abdomen was not painful, the urine was clear, and after an enema, which was followed by a movement of the bowels, the pain grew less severe However, the following night the pain returned, as also did the vomiting No results from enemata, no evidences of hernia, and the patient's countenance was the characteristic *facies abdominalis* Diagnosis was accordingly made of ileus As to its cause and location nothing could positively be stated The condition of the patient constantly became more serious, as evinced by stercoraceous vomiting, hiccough, and increased pain in the abdomen The temperature on October 29th and 30th, was 97 3° F, pulse 80 October 31st, the temperature became still lower, being only 96 4° F November 1st, the condition of the patient being in no wise improved, operation was decided upon After evacuating the bladder the abdomen was opened in the linea alba under a one and a half per cent carbolic spray While the incision was being made a severe attack of stercoraceous vomiting came on Examination revealed no signs of peritonitis Search was now made for cause of the obstruction, and a finger introduced into the ileo cæcal region discovered the presence of a ring in which the colon had become ensnared It was so tightly held that moderate traction was unable to release it, accordingly a probe-pointed bistoury was introduced and the ring twice incised The bowel was now readily withdrawn, and was found to be injected and intensely red The neck of the hernial sac was found to be a hand's breadth from the internal ring, which at once explained the negative result of all previous examinations After the replacement of the intestine the abdominal wound was closed by three silk peritoneal and six superficial sutures, which were rendered antiseptic by previous boiling in a 5 per cent, carbolic solution Iodoform was then applied and the wound covered with carbolized gauze, held in position by strips of adhesive plaster The operation lasted scarcely half an hour

The case progressed rapidly to recovery Movement of bowels took place for the first November 6th, and the 12th of November he was able to take short walks and drives At the present time he has resumed his ordinary employment, and is perfectly well Defecation is normal, and all traces of the hernia, previously existing, have disappeared —*Deutsche med Wochenschr*, March 26, 1885 —*Am Jour Med Sc*, July, 1885

Nephrectomy —At the close of an article on this subject, Professor S W Gross draws the following conclusions

1 That lumbar nephrectomy is a safer operation than abdominal nephrectomy

2 That primary extirpation of the kidney is indicated, first, in sarcoma of adult subjects, secondly, in benign neoplasms at any age, thirdly, in the early stage of tubercular disease, fourthly, in rupture of the ureter, and, lastly, in ureteral fistula

3 That nephrectomy should not be resorted to until after the failure of other measures, first, in subcutaneous laceration of the kidney, secondly, in protrusion of the kidney through a wound in the loin, thirdly, in recent wounds of the kidney or of the ureter, inflicted in the performance of ovariotomy, hysterectomy, or other operations, fourthly, in suppurative lesions, fifthly, in hydronephrosis and cysts, sixthly, in calculus of an otherwise healthy kidney, and, finally, in painful floating kidney

4 That nephrectomy is absolutely contraindicated, first, in sarcoma of children, secondly, in carcinoma at any age, unless, perhaps, the disease can be diagnosticated and removed at an early stage, and, thirdly, in the advanced period of tubercular disease —*Am Jour Med Sciences*, July, 1885

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY.

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE, INCLUDING POSTAGE.

PER ANNUM IN ADVANCE	$5 00
SINGLE COPIES	10 CENTS

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 65 RANDOLPH STREET,
CHICAGO, ILLINOIS.

SATURDAY, AUGUST 29, 1885.

THE INTERNATIONAL MEDICAL CONGRESS OF 1887 AND THE AMERICAN MEDICAL ASSOCIATION.

That mind must be curiously constituted which can complacently quote, as an index of public sentiment, the direct results of its own perversions and mis-statements of facts. And still this is what we find strikingly illustrated in the *Medical News* of the 22d inst. That journal makes quotations from the *Deutsche medicinische Wochenschrift*, *Le Progres Medicale* and the *Dublin Medical Press*. The spirit and substance of all these quotations may be briefly stated as follows: That the American Medical Association, at the meeting in New Orleans, set aside the Original Committee on the Organization of the Congress, together with all the work it had accomplished, appointed a New Committee of men selected without reference to their qualifications, and so restricted the American Membership that the Congress would "be a gathering of the American Medical Association, with a somewhat greater number of foreign guests than could otherwise be invited." These last three lines, together with many other sentences, are almost literally copied from editorials in the *News*, *Record*, and *New York Journal*. When our foreign brethren learn, as they will in due time, that they have been led by the editorials in these journals to base their disparaging comments on an entire perversion of the facts, their estimation of the character of some of those in whom they have hitherto placed much confidence will be materially altered. It is already well known, at least on this side of the Atlantic, that the American Medical Association, at New Orleans, neither displaced nor set aside a single member of the Original Committee of eight by whom the invitation was extended to the Congress in Copenhagen, neither did it, by any act or vote, nullify or set aside a single rule or regulation that had been adopted by the Committee for organization and government of the Congress, nor displace a single individual previously selected by the Committee as an officer of the Congress or of its Sections. On the contrary, the Association did set aside those members of the Committee who had been selected by the original eight chiefly from two or three cities, and put in their places a representative from the profession in each State and Territory, for the express purpose of having the Committee to make the preliminary arrangements for the Congress more fully represent the medical men of the whole United States. The Committee, thus enlarged and rendered more national in character and influence, was simply authorised to revise the work that had been previously done so far as it might deem proper. And nothing was more clearly indicated, both by speech and vote, than that the chief object of the proposed revision should be to make such changes *only as would give to the preliminary* organization a wider distribution of officers, and thereby make it more truly represent the 50,000 active, intelligent members of the profession of the United States, instead of having it limited largely to a select class in Philadelphia, New York and Washington, as had been proposed by the Original Committee.

There is not the shadow of truth in the statement so industriously circulated, especially *in Europe*, that the American Medical Association has in any conceivable way attempted to restrict the American Membership of the Congress to members of the Association, or had given any intimation to the Committee of Arrangements that such restriction was desirable. The truth is that the *Rule* for regulating the conditions of membership is still under advisement, and will not be definitely settled until the special meeting of the Committee called for September 3, 1885.

The question before the Committee is not whether the American Membership shall be restricted to members of the American Medical Association, for no such proposition has been made or entertained. But it is, whether it shall be representative, consisting of delegates appointed by the American Medical Association and its constituent State and local Societies, and by all the national organizations of special departments in medicine on the one hand, or on the other of all such members of the regular medical profession, either in this country or Europe, as may inscribe their names on the register and take out their tickets of admission. There is no reasonable doubt but that one of these propositions will be adopted at the coming meeting of the Committee. And certainly the adoption of either of them would secure a full attendance from the leading members of the profession from all parts of our country, and give to those who may come from the other side of the ocean as cordial a reception as they have had in any other part of the world.

COMPLETE DILATATION OF THE CERVIX UTERI, AN ESSENTIAL CONDITION TO THE TYPICAL FORCEPS OPERATION.

A few weeks ago, a zealous student of midwifery, and an original thinker of prominence, wrote the following sentence with reference to a rule of practice of vital importance in midwifery:

> "I regard the rule (not to apply the forceps till the os is completely dilated), long held by the ablest men, to be entirely erroneous, and capable of doing much harm to womankind and to the obstetric art. It is part and parcel, in my judgment, of those other rules, which have, by a singular want of knowledge of the great range of usefulness of the forceps, hampered mankind in its use.
>
> "I have no doubt that Chamberlen used the forceps as Lusk does, so far as his instrument allowed him, and two hundred years after him, in the face of thousands of facts to the contrary, we are still hampering the instrument with rules invented in the closet, and handed down from writer to writer, a heritage of ignorance, as I think, in lieu of a generalization from experience.
>
> "For myself, though my experience with the forceps is very limited, instead of regarding the dictum that they should not be used until the os is fully dilated, I take pride in stating that, so far as my recollection goes, in no case of my own was a woman ever allowed to lie in suffering and danger till the os was 'completely dilated.' When delivery was desirable, and the *os uteri* prepared for dilation, I proceeded to dilate it in a way as exactly after the manner of nature as I could conceive of, namely, by using the head itself as the dilator, and in so doing calling upon the uterus to aid my efforts."

We hope to be pardoned if we presume to suggest that a "limited experience" with the forceps disqualifies an operator for the expression of opinion upon the subject of the conditions of the forceps operation.

To avoid ambiguity in the use of terms, it may not be out of place to define our conception of the expression, "complete dilation of the *cervix uteri*." When the head descends into the cervical canal and pelvic cavity, the walls of the lower uterine segment become ultimately so far dilated that neck and vagina form one continuous canal, and the cervix is said to be completely dilated. When the head remains in the pelvic inlet, the external os may be completely dilated before rupture of the bag of membranes, but after the escape of the *liquor amnii* its walls may collapse, and present an aperture apparently passable by but three or four fingers. In reality, the os is completely dilated or dilatable.

We are very decidedly of the opinion that a serious study of the nature of the case, and a careful weighing of the opinions of those obstetricians whose views are entitled to distinguished consideration, will furnish evidence sufficient to establish the proposition that *complete dilatation of the cervix uteri is an essential condition to the typical forceps operation*. This postulate does not apply as a universal proposition to all forceps operations. There are cases—of seldom occurrence—in which, the application of the forceps is indicated when this condition is not present. To such operations, the term *atypical* has been well applied by Zweifel and others. The application of the forceps through an os not completely dilated is an operation at once difficult, dangerous and seldom indicated. The technical difficulties in the introduction of the instrument under the guidance of two or more fingers, as insisted upon by all modern authorities on operative obstetrics, are great.

Neglect of the precaution of the introduction of two or more fingers entails disastrous consequences. Hyernaux (*Presse Med.*, xviii, 10, 1865) records a case of perforation of the vaginal wall, with escape of intestines and omentum through the vulvar orifice between the thighs. The patient was a iv-para. Another case is reported (*M. f. G. B.*, 24, sup., pp. 157-208, 1865), in which the blade passed through the right vaginal wall, and perforated the bladder. The woman died from hæmorrhage, and the surgeon was sentenced to nineteen months imprisonment. The dangers of injury to mother and child are obvious. It is a very easy matter to grasp a portion of the cervical walls between the blade and the head. A case in point has recently come under our observation. The forceps was applied to the head, resting in the mid-plane of the pelvis, through an undilated os, by an able and experienced practitioner. Together with the head, a shred of tissue, six inches long by two broad, was extracted. Upon microscopical examination this shred of tissue proved to be a portion of the uterine walls. But the risk of producing cervical lacerations of all degrees, from a mere nicking of the edge of the external orifice to rents extending through the *corpus uteri*, involving the *parametrium* and pelvic peritoneum, is of more importance. It is scarcely necessary to call attention to the fact that the laceration, *per se*, is seldom of so grave prognostic moment as the danger of puerperal infection. The idea of using the head as a dilator is as old as the history of the forceps. The head is rarely a physiological dilator of the cervix That function is usually relegated to the bag of waters With the long, narrow-bladed forceps of Dr J E Taylor, there is great danger of injurious compression of the fœtal head, while with Simpson's, the volume is increased

The danger of injury to the fœtus is frequently not less than that to the mother It is well to bear in mind that sententious remark of Zweifel "The result of an operation is not always settled with the conclusion of the labor" Deafness and permanent injury of the *portio dura*—the results of injurious compression—come under our observation only too frequently According to the modern idea, the forceps is an instrument with which it is practically impossible to injure either mother or fœtus But the operation is seldom indicated The "personal equation of error" exercises great influence in the determination of the indications for the application of the forceps Under the direction of George Johnston, from 1869 to 1871, in the Rotunda Hospital, in Dublin, the number of forceps operation was 227 to 3,338 labors, or 1 14 7 In 1877, Lombe Atthill states that the number of forceps operations was 96 to 1,132 labors, or 1 11 8 It is not our purpose to investigate the motives of such operative procedures Class instruction, Dr Goodell's famous story of "reed-birds for supper," suggest themselves In Austria and Germany, the instrument is seldom applied more than once in fifty or sixty labors, and the results are far more favorable The increased mortality of the forceps operation in Dublin, and the United Kingdom generally, cannot be explained, however, simply on the ground of operative procedure when the necessary conditions and indications are not present, for the Viennese obstetricians are unusually skilful manipulators, and strict attention is paid to the prevention of puerperal fever

If special prominence be given to the doctrines of the Vienna school, in the attempt at summarizing the opinions of authorities on operative obstetrics, it is due to the fact that the colossal material, a system of records of critical accuracy, and liberal State encouragement have combined to give that famous school a peculiar vantage-ground We find an authoritative expression of opinion upon the subject in question in Dr Friedrich Schauta's "Grundriss der Operativen Geburtshilfe" "We demand, therefore, when the head is engaged in the pelvic inlet, the complete dilatation of the *os externum*, or, at least, its easy dilatability When the head is low down in the pelvic cavity, the forceps should never be applied until the greatest periphery of the head has passed the external uterine orifice" A similar rule of practice will be found in the text-books of Carl Braun, Josef Spaeth, and Gustav Braun This rule is rigidly enforced in the three obstetrical clinics of the Allgemeines Krankenhaus, with the favorable results, which have already been mentioned Dr Ludwig Kleinwachter (Grundriss der Geburtshulfe), states as an absolute condition for the application of the forceps, "The uterine os must be completely dilated" Otto Spiegelberg says "When the external orifice is not fully dilated, the forceps should only be applied when the head is small and the lower segment of the uterus dilatable, then only under the strictest indication" Such cases, he says, may occur in eclampsia with premature labor, but they always demand the highest technical skill (Lehrbuch der Geburtshulfe, 1882, p 743) In other words, complete dilatation of the os can be dispensed with only in *atypical* operations

Dr Paul Zweifel says, in his "Lehrbuch der Operativen Geburtshulfe" "The mouth of the uterus must be completely dilated" Pajot (Travaux d'Obstetrique et de Gynécologie) says that complete dilatation of the os is an indispensable condition to all forceps operations "Every application of the forceps," says Charpentier (Traite Pratique des Accouchements), "tried before the neck is dilated or dilatable, is an operation not only useless, but dangerous" Cazeux and Tarnier, "Obstetrics," say "The dilatation or the dilatability of the *os uteri* is even more indispensable here than in the case of version" Playfair says "For the safe and easy application of the instrument, it is also advisable that the os should be fully dilated, and the cervix retracted over the head" "If the os be not fully dilated, but is sufficiently open to admit of the passage of the forceps, the operation, under urgent circumstances, may be quite justifiable, but it must necessarily be a somewhat anxious one" Hodge says "The os uteri should be fully dilated, or, at least, very easily dilatable, before the instruments are applied"

On the other hand, Schrœder, Barnes and Lusk are disposed to dispense with this condition to a considerable degree Schrœder, however, demands that the *cervix uteri* shall have disappeared Barnes, while advocating the application of the forceps, when the head is at the inlet and the *liquor amnii* discharged, in lingering labors, even when the *cervix uteri* is not fully dilated, criticises the Dublin rules for operative procedure (Obst Transact, vol XXI, p 121) Lusk, while encouraging the practice of bringing the head into the cervix with the instrument, to act as a dilating wedge, says "I can only say that, with increased experience, my own practice has grown more and more conservative, and my own belief is that true wisdom requires us to abstain from even trivial operations so long as nature is able to do her work without our assistance" (The Science and Art of Midwifery, New York, 1883, p 343)

THE MONUMENT TO GENERAL GRANT

It is an unquestionable fact that the most fitting monument to a great or a good man, or to any one whose memory should be perpetuated by a material tangible structure, is something that will confer a material benefit to other people More than this, it is most probable that any man, whose memory is or will be of any value to his countrymen or to the world, would, if consulted on the subject, prefer that the money spent in erecting a memorial to him should be spent in such a way as to materially benefit a certain class or classes of people, and thus indirectly benefit all

The American people are now interested in building a suitable monument to General Grant The subject and enterprise are of national interest, and it is highly probable that a very large amount of money can be raised for the purpose The following, from our most esteemed lay contemporary *Puck*, is most apropos to this matter

"We have done enough, as a nation, and badly enough, in all conscience, in the monument line Let us to day, in a spirit of holy humility, try to resist the temptation to make further fools of ourselves We wish to perpetuate, in some material way, the memory of the great man who has just died So be it But let us not tie the remembrance of his greatness to another architectural or sculptural monstrosity Let us avoid the memorial style in which we have hitherto made ourselves ridiculous It is not likely that we shall ever build a good monument to General Grant, or that we shall even make a statue of him which will be artistically beautiful

"But there is no reason why we cannot found some institution, educational or charitable, that shall hand his name down to posterity in living strength and grandeur The monument that Peter Cooper raised for himself has done more to keep him in grateful remembrance of the people than moulded bronze or chiseled marble could ever do Let us not forget this when we cast about how fitly to do honor to our dead hero And while the public may be slow in responding to a call for money to build a useless and presumably ugly monument, they will not be apathetic when we ask for their help to raise a useful, noble, vital memorial to an honored name"

It may be suggested that a free educational institution would also serve the purpose of a charitable institution It is now quite certain that the State of Illinois, and the cities of New York and Chicago will spend quite large amounts of money in erecting monuments to the memory of General Grant And what monuments could be more fitting than those which would not only please the eye, but also be of lasting service to Humanity? People in America have shown that they are more willing to give money to a substantial good than to objects that are of immaterial benefit, and we think that should Illinois, as a State, and New York and Chicago determine to erect useful educational or charitable institutions in place of marble or bronze monuments, there would be but little difficulty in obtaining the necessary funds In a quite similar case no difficulty has been found in England in raising money for the Gordon Memorial Hospital (though this example is in no way meant as a suggestion) Furthermore, should the funds be appropriated to charitable or educational purposes the results would be capable of constant improvement—which otherwise would not be the case *Puck* has made, as usual, a very wise, common-sense suggestion

PUBLIC SENTIMENT OF THE PROFESSION

If those journals that have lent their pages to a free publication of all the perversions of the facts regarding the Committee of Arrangements for the International Congress, that the faction of obstructionists could invent, were as anxious to inform their readers of the true state of public sentiment as they are to quote the comments of foreign journals founded on their own misstatements, they would find place for the names of more than one hundred of the more prominent members of the profession in Philadelphia, and between three and four hundred more in other parts of that State, signed to a circular directly endorsing the action of the American Medical Association, and pledging their individual support to the International Congress, as an offset to the twenty-eight eminent Philadelphians who must have the honor of starting the disgraceful work of obstruction They would also be as quick to announce the fact that the Alleghany County Medical Society had at a full special meeting reconsidered its former vote, and unanimously endorsed the action of the American Association and its present Committee of Arrangements, as they were to herald its first hasty action

SOCIETY PROCEEDINGS

CHICAGO MEDICAL SOCIETY

Stated Meeting, August 3d, 1885,

THE PRESIDENT, CHARLES T PARKES, M D,

IN THE CHAIR

DR FRANKLIN H MARTIN, read a paper on

OLEATE OF MANGANESE

He said There is little doubt left in the minds of therapeutists in regard to the value of manganese as a remedy in certain forms of menstrual trouble The remedy, in the form of permanganate of potash, was first brought to the attention of the profession by Ringer and Murrell, of London, in the spring of 1883 They recommended the drug in functional amenorrhœa Soon after this he commenced experiments with the same preparations, and published the results in the *Medical Record*, Sept 29, 1883 To his knowledge, that was the first that anything on the subject was published in this country

In the course of his experiments, acting on the theory that the drug produced menstruation by stimulating the menstrual organs, he was induced to give the remedy in menorrhagia and metrorrhagia dependent upon an *atonic* condition of the organ He found, to his gratification, that it acted equally well in these conditions as in the opposite He has also obtained good results from its administration in irregularities incident to approaching menopause He has received very gratifying letters from many members of the profession throughout the country, who have used the drug in one or more of the conditions mentioned above, with good results

Dr Thomas, of New York, says of the remedy "I think it is the best emmenagogue which has yet been discovered" Dr Roberts Bartholow not only recognizes its power as a remedial agent in amenorrhœa, but also considers it a general stimulant, making it equally efficacious in other menstrual difficulties dependent upon an *atonic* condition After publishing his second report on this subject, the author received a letter from Dr Sydney Ringer, of London, in which he expressed his gratification at the result of his experiments, and in which he said "Like you, I have found the permanganate most useful in atonic conditions," and further remarked, "I was quite prepared to learn that the permanganate is useful in menorrhagia"

Since there is no longer any doubt about the great value of this drug in the distressing menstrual difficulties, the next formidable problem for the therapeutist to solve is, How shall it be administered? The permanganate of potash, the original preparation used for experiments and administration, in any form is liable to act as an irritant to the stomach It has, in many ingenious ways, been made into pills, but as these pills must of necessity have for their basis kaolin, or some other inorganic substance, the drug in this form is not satisfactorily absorbed The compound tablets of Wyeth & Co, and other druggists, are objectionable in many cases of irritable stomach, because the irritating, undiluted drug comes in direct contact with its mucous membrane On account of the many difficulties of administration, therefore, this valuable remedy has not met with the reception that is its due Following the suggestion of Dr Lewis L McArthur, of this city, he succeeded in having an oleate of manganese prepared This oleate was made for him by Edward Kreyssler, of the firm of Forsyth & Schmid, of Chicago He says he is indebted to Mr Kreyssler for the following statement of the mode of preparation and of the physical and chemical properties of the oleate of manganese A solution of sulphate of manganese was made in distilled water, and to it a solution of sodium oleate was added On mixing these two solutions gradually, and with constant stirring, a precipitate of oleate of manganese resulted This precipitate, upon heating, changed to a putty-like mass This was washed several times with warm distilled water, to remove the sodium sulphate, and the resulting mass was the pure oleate of manganese It is of a light gray color, having a pinkish hue, of a sweet, musty taste, and peculiar, clay like odor It is sparingly soluble in alcohol, soluble in ether, chloroform, olive oil and oleic acid

The Method of Application—He recommends that one drachm of a twenty per cent solution of the oleate of manganese in oleic acid be applied to the abdomen of the patient, and its absorption promoted by friction with the hand In amenorrhœa it should be applied, if possible, every night for a week preceding the expected menstrual period, or at the time menstruation is due, and until it makes its appearance In menorrhagia or metrorrhagia it should be applied in smaller quantities every night, until the desired effect is produced Of about a dozen cases in which the oleate has been prescribed by him, but four had reported The success in these four was all that could be wished Three of the four were cases of *atonic amenorrhœa*, the fourth, irregularity due to approaching menopause

DR J H ETHERIDGE thought much advance would be made in the use of drugs if we were more careful to discover in what conditions they were beneficial He had found this remedy useful in cases of atonic amenorrhœa with the uterus in its normal position He had found the aqueous solution an eligible preparation, and had also used it in the form of a suppository

DR E J DOERING said he had used this remedy in some cases of atonic amenorrhœa with good results He asked the effect of the drug upon the pregnant uterus

DR PAOLI had used manganese somewhat for several years in cases of menstrual disorder, with varying degrees of success It was a useful remedy in many skin diseases He had not used the oleate, and could not see how it acted upon the uterus, unless, possibly, by being applied at once after being freshly prepared

DR MARTIN closed the discussion by saying he had used the aqueous solution in very small doses, also had had the remedy put in dry papers and swallowed with a glass of water He had never used it in the form of a suppository. Manganese has no effect on the pregnant uterus. The drug seems to act as a general stimulant to the uterus, causing it to perform its normal function. It might be absorbed as the oleate, and so produce its effects.

DR. JOHN BARTLETT read a paper on

LACERATION OF THE CERVIX UTERI,

in which he said his object in addressing the Society was to suggest a way and a time in which laceration of the cervix uteri may be easily and certainly detected soon after its occurrence. Directly after delivery, if the fingers be introduced deeply into the vagina up to the contracted os uteri internam, and then carried in any direction a little outwardly, the flabby and floating ring formed by the non-contracted cervix may be felt, as Guillemeau described it three hundred years ago, "like a section of large intestine."

By very carefully following the entire circumference of this ring an existing rent may be discovered. But this examination is attended with some difficulties. The patient is exhausted with her labor and fatigued with attentions, and just now, since "it is all over," longing for rest. She is impatient of, and perturbed by this *post factum* inquiry. Her state of mind and possible expression of complaint are apt to render an examination, which the physician cannot regard as absolutely necessary, less exact and thorough than it would be otherwise. And then, the soft and floating margins of the cervix have often somewhat of an intangible feel, if the expression be permitted, gliding past the fingers like a detached clot of blood, and occasionally, in some portion of their circumference, passing out of satisfactory reach. On this account it is not surprising to hear an obstetrician say that he cannot tell whether the post-partum cervix is lacerated or not. The error of the accoucheurs who fail to recognise such a condition is that they do not make their observation of the suspected cervix at the proper time. They examine the neck actually, as has just be done mentally—alter the clearance of the uterus. The favorable moment for the examination—and that, he said, was the special point of his remarks—is just as the placenta is beginning to occupy and distend the cervix. The collar of flesh is then not floating and uncertain in feel, but stretched and expanded, forming a distinct ring, easily followed in its entire circumference. At this moment, then, just as the cervical tube is being rendered tense by the placenta mass, any laceration in it may be detected with ease and certainty. Dr. Bartlett illustrated his remarks with earthenware models turned by a potter under his immediate direction.

DR. ETHERIDGE asked the author of the paper whether he had verified a case by speculum examination after discovering it in the way he had illustrated in his remarks.

DR. PARKES said he had great difficulty in detecting laceration after delivery, on account of the relaxed condition of the parts. He thought the suggestion of Dr. Bartlett as to the way to obviate this difficulty was a good one.

DR. DOERING inquired as to the size of lacerations he had found.

DR. BARTLETT concluded by saying that he had verified cases of laceration discovered in the manner proposed by him. The largest laceration he had found was one and a half inches in length, and the end of the little finger could be passed into it. In one case he encountered considerable hæmorrhage from such a rent, and this may be the cause of continuous loss of blood when the os is well contracted.

Stated Meeting, August 17, 1885.

THE PRESIDENT, C. T. PARKES, M. D., IN THE CHAIR.

The PRESIDENT reported

A CASE OF OVARIOTOMY.

In February, 1885, the patient, Mrs. R., aged 43, ten children, came under the care of Dr. O'Connell, of Ponca, Nebraska, who diagnosticated ovarian tumor. Dr. Parkes was requested to perform ovariotomy. He found the patient in fair condition generally, hopeful and clear-minded. The abdomen was glistening with distension. Fluctuation was extremely well marked in all directions and in all positions of the patient. No resonance anywhere. No umbilical hernia. Her trouble dated from August, 1884, when a small tumor was perceptible in the right side. It gradually increased in size until January 17, 1885, when local peritonitis set in and was followed by rapid distension. Ovariotomy was done March 24, 1885. The patient had been placed in a bright light and an incision four inches in length made in the abdominal walls, midway between the umbilicus and pubes, to the peritoneum. There was no peritoneal fluid, but fortunately the bright light enabled me to distinguish between the peritoneum and the sac of the tumor, so closely were they applied to each other by adhesions. The adhesions were broken down so far as the hand could reach. A trocar was next plunged into the tumor and about 18 quarts, or about 36 pounds, of a dark, sanguineous fluid evacuated. The sac was enormously distended and very thin. After the most of the contents were drawn off, the opening made by the trocar was closed by Nélaton's forceps. The sac was still adherent extensively laterally and posteriorly. These were destroyed as completely as possible, and yet it was impossible to draw the sac through the opening or to reach the deeper adhesions to the pelvis and flanks. Finally a free space was found in the right iliac fossa, the sac turned up and the pedicle found and secured. The greatest difficulty was found in separating the sac from the intestines, which were universally adherent to the posterior surface of the sac, and could only be reached by turning the tumor upwards after division of the pedicle. A firm, broad adhesion to the stomach at the top of the cyst could not be separated, so a portion of the outer wall of the cyst, corresponding in size to the adhesion, was dissected from the tumor, and in that manner the entire tumor was finally removed. The pedicle was about two inches long and very slender, and came from the right side of the uterus. It was noticed in the specimen exhibited that the sac was almost entire, and that it was not smooth and glistening, but rough from the adhesions, and at lower part there was an indurated mass about the size of a large orange The sac and mass together weighed but three pounds There was a vast area of oozing surface from which the adhesions had been torn, yet very little blood was lost The abdominal cavity was thoroughly sponged, a drainage tube introduced, and the wound closed by six silk ligatures

The length of the incision, after the removal of the tumor, was but two inches The patient progressed favorably until the fourth day, when she was attacked with severe and persistent vomiting, rising temperature and pulse Stercoraceous vomiting ensued and increasing exhaustion until her death, on the sixth day, pointed toward bowel obstruction

The points to be noticed in this case are the great extent of the adhesions, the only clear space being in the right iliac fossa, the only way to reach them being to ligate and separate the pedicle and then turn the sac upwards, the small size of the pedicle to such a large tumor It seemed to be approaching very near to the conditions of a free ovarian tumor explained by Mr Doran, who explains their presence by atrophy and abruption of the pedicle taking place when there are very vascular adhesions of the tumor to other parts, through which nourishment is carried on It was also noted that this patient went along all right for five days, them symptoms of intestinal obstruction set in The question was raised, whether it is not the urgent duty of the surgeon in such a case to reopen the abdominal wound and search for the seat of the obstruction and remove it

The PRESIDENT also reported

A CASE REQUIRING BATTEY'S OPERATION

Miss M , age 17, single, an American, had suffered greatly from pain referred to right iliac fossa, increased during menstrual periods, for one year previous to placing herself under his care, January, 1885 She was already an invalid Examination *per rectum et vaginam* disclosed retroversion of the uterus, accompanied with a dislocation of the right ovary into the Douglass *cul de sac* Medical treatment having failed, Battey's operation for the removal of the prolapsed ovary was done June 2, 1885 Nothing unusual occurred during the operation, and the patient convalesced rapidly The temperature never rose above 99° The dressing placed upon the wound was the dry dressing consisting of iodoform, antiseptic gauze and a layer of absorbent cotton This dressing was not removed until the seventh day, when the stitches were removed The line of cicatrix was perfect throughout There was no formation of pus The blood around the stitch holes was dry and scaly The case was remarkable, principally, for the absolute freedom from any discomfort during the recovery from the operation It was the first example of dry wounds Dr Parkes had ever seen The patient was out in three weeks The uterus was not fastened in its new position, and is slightly antiflexed, but not anteverted The morbid specimen exhibited is the ovary much enlarged with two small parovarian cysts developed on it

He then reported

A CASE OF DOUBLE OVARIOTOMY

Mrs P , æt 44, and had borne three children She complained of a tumor growing for the last two years over the situation of the gall bladder February 15, 1885, Dr Parkes made an exploratory operation, and after cutting into growth, out popped this biliary calculus, about one inch long and bean shaped Nothing further was done, and the tumor began to disappear However, during the manipulation of the abdominal walls he discovered two small tumors in the pelvis, in the region of the ovaries, which were supposed to be ovarian growths, but were not disturbed But they rapidly grew in size, and were removed by laparotomy on June 16, 1885 The bowels had been moved two days previously The abdominal incision disclosed the larger of the two tumors now shown, the larger filling the anterior inlet of the pelvis and held down by slight adhesions These were broken down and the mass removed It was found to be the degenerated right ovary The pedicle was extremely short and was with difficulty secured It was tied, divided, and the stump dropped Likewise the left ovary was removed and found to be degenerated The tumor being smaller and pedicle longer, no difficulty arose Finally, in sponging, quite free bleeding was noticed from the right pedicle It was again transfixed close to uterus and all hæmorrhage ceased

It was noticed that the sigmoid flexure of the colon was distended with fæces, and this condition was remarked as unaccountable, from the fact that free catharsis had been obtained only two days previously The patient did nicely for ten days after the operation, with the exception that no action of the bowels could be secured by medicines or enemata A careful digital examination revealed, high up in the rectum, a stricture which could not admit the end of the index finger The slight opening was surrounded on all sides by a thick, dense deposit of abnormal growth The question of relief seemed to stand between forcible dilatation of the stricture and the establishment of an artificial anus July 30, he dilated the stricture so as to admit three fingers in a cone shape The tissue was very dense It broke down with difficulty, and the induration extended up the bowel quite two inches After this was done the scybalous mass was easily removed By the next day the bowels had moved several times, freely, and tympany disappeared As Dr Parkes had to leave the city July 5th, the patient was left in the care of Dr R G Bogue, who subsequently told him the patient had died suddenly on July 10th, with symptoms of perforation of the bowels Two inquiries arise

1st Is it not well to examine the rectum thoroughly before operations, in all cases?

2d Would the establishment of an artificial opening, as soon as the nature of the obstruction was determined, have given a better result in the case reported?

Dr Parkes also exhibited a specimen of *epithelioma of vulva*, which he had removed by Paquelin's cautery

Dr Etheridge opened the discussion by asking how far we could go in removing portions of the intestine in cases of obstruction He said that he had recently had a trying experience in case of ovarian tumor, in which, after the operation, the patient reacted well, but in 48 hours vomiting came on, which soon became stercoraceous and the patient died On post-mortem examination, the whole of the large and most of the small intestines were greatly distended with flatus A short piece of the small intestine, just where it entered the large one, was collapsed, and with great difficulty could any of the flatus be forced through it He asked the author of the paper if he would have had the courage to have removed this portion of the intestine

Dr Franklin H Martin said he had been very much instructed and entertained by Dr Parkes' well detailed report It had impressed him with three points or lessons that were dwelt upon in a recent article by A Vander Veer, M D , of Albany, N Y , in the July number of the *American Journal of Obstetrics*, citing "personal observations on the work of Lawson Tait," at his private hospital in Birmingham, England These three points, which to his mind explain, to a great extent, the wonderful results of that great operator, are

1st Cleanliness, pure air and sunlight

2nd Efficient, good looking nurses

3rd Close personal supervision, and attention to after-treatment

In the first case that Dr Parkes reported to-night good light had saved him from going directly into the sac of the cyst in attempting to enter the peritoneum This case also, he suggested, might have fared better had he been present to have given personal attention to the movement of the bowels, thus, possibly, removing the obstruction which was apparently present In the third case, if personal attention had been given to the bowels sooner, the obstructions due to the stricture might have been removed and the ultimate result been more favorable Here the nurse was at fault Again, in the third case, if personal attention had been possible, the early operation of artificial anus, as Dr Parkes suggested, might have influenced favorably the ultimate result

Dr Weller thought that dilatation of the rectum was the only feasible method of relief in the case in which a malignant growth was formed in the lower bowel An operation for an artificial anus would have been difficult under the circumstances

Dr S H Stevenson asked why not open the sigmoid flexure and remove the accumulation from it at the time of the operation?

Dr Parkes closed the discussion by saying he would remove a portion of the intestine if it presented the only way of saving the patient's life If in a few days after the operation symptoms of obstruction should come on, he would reopen the wound and seek for the seat of the trouble He said that his theory of the best mode of procedure in these cases was gaining ground in the profession every day Dr Hamilton, of New York, lately reported a case of a gun shot wound of the abdomen, in which there were eleven perforations of the small and four of the large intestine These were sewed up and the patient recovered

The cause of the constriction in the case reported by Dr Etheridge was probably due to an obstruction of the arterial supply to this part of the intestine, causing it to contract Little good would come from an operation in this case He thought an artificial anus might have been made in the second case referred to in his paper, though the bowel was distended In these cases only a small opening was necessary This might have prolonged the patient's life a short time The cause of death was perforation of the bowels resulting from an ulcer incident to the dilatation of the rectum He generally used saline cathartics to open the bowels He would not have been justified in removing the accumulation from the sigmoid flexure at the time of operating, on account of the additional shock to the system it would have caused

Dr Henry T Byford then read some

OBSERVATIONS ON THE CAUSE AND TREATMENT OF INFANTILE ECZEMA AND ALLIED ERUPTIONS

He said, in the winter of 1880 he had been called to attend Mrs R in her fifth confinement Two of her other children were dead, and two more, apparently healthy at birth, had died in convulsions before they had completed one year of life Both of the last two had suffered from scabby eruptions and had become somewhat emaciated, but had not been considered syphilitic The child born at this time, seemingly healthy at first, soon broke out with what appeared to be an ordinary eczema pustulosum This eruption occurred on the scalp and on different parts of the body The child suffered from progressive emaciation, and at the age of three weeks it would easily have been mistaken for a case of struma, to be treated with cod liver oil The patient was quickly relieved by calomel in minute doses and mercurial inunctions

The next case referred to was that of Augustus G seen first in the summer of 1876 The child had pustular eczema of the scalp, great nocturnal restlessness, and suffered from progressive emaciation There was no cause to suspect syphilis from the appearance of the child, but the father acknowledged to what seemed to be a perfectly cured attack of syphilis The eczema rapidly disappeared, and the infant gained in flesh upon calomel powders and mercurial inunctions

In contrast with these syphilitic cases, he next mentioned the case of E H , a child one year of age, fat and well nourished, with no possibility of a syphilitic taint, but suffering from an eczema of the head, which spread over the body in patches Prolonged local treatment had not improved it The disease soon disappeared under the use of one-fifth grain powders of calomel, given twice a day, and an ointment composed of a dram of carbolic acid in an ounce of oxide of zinc ointment The child had been overfed and was put upon a restricted diet There was no return of the disease

The next case was one in which the eruption invaded the eyelids and caused great conjunctival sensitiveness. By the use of quarter grain doses of calomel, given twice a day until a laxative effect was produced, then once a day, combined with the external application of carbolized oxide of zinc ointment and a borax eye-water, the condition of the patient was soon greatly improved.

He had succeeded in relieving many other severe cases of eczema by the use of calomel, and it made no difference on what part of the body the eruption occurred, or what the condition of the patient was otherwise. That eczema so frequently occurs in infancy, the large size and great activity of the liver in early life, and the striking action of calomel, had led the author to associate indigestion with infantile eczema as cause and effect. In syphilitic cases the alterative powders often produced an amelioration in the skin trouble sooner than they could through their direct action upon the blood poison. In all cases it is important to regulate the diet. He knew of no authority who had considered derangements of the liver, and its accompanying disorders, as the chief cause of eruptions of the skin, or who had recommended calomel as the chief remedy for its cure. As calomel produced such prompt relief, and as improvement of digestion usually followed rather than attended the action of the remedy, one is led to believe that the cure is brought about not merely by improving digestion, but by a removal of waste irritating matter from the system, and from the great efficiency of mercury over other laxatives. He believed that the irritating materials are not only in the retained fæcal matter, but also in the blood—the products of imperfect digestion, assimilation and excretion. He was led to the use of calomel in eczema from noting its good effect in cases due to syphilis, and as these patients improved so well under its use, he next tried in cases where syphilis was only suspected, and then in all cases. The usual dose was from one quarter to one-eighth of a grain powder, given twice a day, the dose to be reduced if too great irritation of the bowels was produced. In cases of children over two and a half years of age, in order to avoid salivation, he usually gave purgative doses of calomel every six or eight days, and trusted to diet and other remedies in the meantime.

In the discussion **DR. E. J. DOERING** said he had not used calomel in eczema, but had had good results from the use of corrosive sublimate. He intended to use calomel after this in such cases, and he thought nothing better could be found to use in chronic cases.

DR. J. ZEISLER remarked that he was very much interested in this paper, and especially to hear that calomel was useful in eczematous skin diseases. He had always held the view advocated by Hebra, that eczema was caused by external causes, and required external applications for its cure. Calomel might be of use in cases due to syphilis. He would not use blue ointment on young children. He asked whether it would not be best to use some external application in cases where there were thick masses of crusts covering the diseased part, and also whether the author of the paper had found salicylic acid useful in this disease.

DR. C. W. PURDY thought retained excreta a cause of eczema, and called attention to the close relation existing between the intestinal tract and the skin, the condition of the one affecting the other. He had seen cases cured by the use of calomel, and would favor this treatment.

DR. J. A. ROBISON said that Dr. Byford had found mercury beneficial in syphilitic and non syphilitic cases probably because, given in small doses, it was a general tonic, as iron or cod liver oil, increasing the number of red blood corpuscles and enriching the blood. Thus it counteracted any dyscrasia present.

DR. BYFORD concluded by saying that Hebra was doubtless right in saying eczema is caused often by external causes, but in some cases it was clear to him that the disease is due to causes arising within the system itself. In later years Hebra had modified his ideas of this disease somewhat. Although eczema could be cured by external applications, when so treated it is very apt to return. It is not so when removed by the use of calomel. External medication would often hasten the cure. He did not use salicylic acid. He believed that calomel in these cases acted as an agent causing eliminations as well as being a tonic.

STATE MEDICINE

GOOD HEALTH RESULTS FROM SANITARY WORK

Sanitary authorities have claimed that the sanitary work which they have recommended to be done as a preparation for cholera,—such as preventing and abating nuisances, attending to drains, sewers, privies, and cesspools, cleaning up generally, and unusual carefulness in regard to foods and drinks,—would reduce the sickness and deaths from other diseases, even if cholera did not come. The weekly reports for July, 1885, to the Michigan State Board of Health, by physicians in different parts of the State, indicate that this claim is being realized in Michigan, so far as relates to the lessened sickness,—it having been lessened from nearly every disease, and greatly lessened from fevers and from diarrhœal and other diseases believed to be especially influenced by sanitary conditions and this is true notwithstanding the meteorological conditions in that month were rather more than usually unfavorable to health. It is proper to state, however, that the sickness in any month is influenced by the meteorological conditions in the preceding month, and that the meteorological conditions in June, 1885, were favorable to health.

Observations in Michigan for many years have shown that in July the meteorological conditions especially unfavorable to health are High temperature, excessive humidity of the atmosphere, and deficiency of ozone. The Bulletin of Health in Michigan July, 1885, says "For the month of July, 1885, compared with the average of corresponding months for the seven years 1879–1885, the temperature was slightly higher, the absolute and the relative humidity were more, and the day and the night ozone were less "

"Compared with the average for the months of July in the seven years, 1879–1885, remittent fever, intermittent fever dysentery, consumption of lungs, cholera infantum, diarrhœa, cholera morbus, measles, and whooping-cough, were less prevalent in July, 1885 "

A large part of this decrease in sickness has undoubtedly been due to the medical and sanitary journals and newspapers, which have constantly kept before the people the necessity for sanitary work and the facts as to the spread of cholera in Europe

It remains to be seen to what extent efforts for the exclusion of cholera from this country, and the general preparation for cholera by Boards of Health and the people, shall prove effectual, but even if cholera shall not be entirely prevented, there will remain the belief that the measures which have so greatly decreased the sickness from other diseases, cannot but have had their influence in decreasing it, and if cholera does not occur in this country it seems quite probable that, by reason of the suffering elsewhere, there may be as many cases of serious sickness prevented in this country as there have been cases of cholera in Europe But this may not continue without continued vigilance and effort

Health in Michigan in July, 1885, compared with the average in July for the seven years, 1879–85

Diseases arranged in order of greatest diminution of sickness in July 1885	Per cent of Reports stating Presence of Disease		Per cent of Reports more (*) or less (†) in July 1885 than the average for July 1879–85
	In July 1885	Average in July 1879–85	
Remittent fever	30	51	*21
Dysentery	15	32	*17
Intermittent fever	65	82	*17
Consumption of lungs	48	63	*15
Cholera infantum	20	33	*13
Diarrhœa	62	74	*12
Cholera Morbus	39	49	*10
Measles	8	17	* 9
Whooping cough	14	22	* 8
Pneumonia	10	16	* 6
Typho malarial fever	10	15	* 5
Diphtheria	11	16	* 5
Bronchitis	41	46	* 5
Rheumatism	59	64	* 5
Inflammat n of kidney	17	21	* 4
Scarlet fever	11	14	* 3
Typhoid fever	6	8	* 2
Membranous croup	1	2	* 1
Small pox	0	1	* 1
Inflammat n of bowels	16	17	* 1
Influenza	18	19	* 1
Erysipelas	21	22	* 1
Neuralgia	58	59	* 1
Puerperal fever	6	6	—
Inflammation of brain	6	6	—
Cerebro spinal menin s	8	5	† 3
Tonsilitis	36	32	† 4

It will be seen that there was less sickness than the average for July from nearly every disease reported From only two, cerebro spinal meningitis and tonsilitis, was there an increase

FOREIGN CORRESPONDENCE

LETTER FROM PARIS

(FROM OUR OWN CORRESPONDENT)

Microbes of Mumps—Post-phenomena of Decapitation—Bust of Gueneau de Mussy—The Cholera in Spain—Dr Ferran

That mumps is a contagious as well as an infectious malady has long been known, but what the nature of the contagium was, was not so well understood Dr A Ollivier, Physician to the Children's Hospital in Paris, has made some researches with a view of ascertaining the correctness of the results previously obtained by Drs Capitan and Charrin, who had been occupied in the same line of research Like these two experimenters, Dr Ollivier discovered in the divers liquids of the economy, but principally in the blood and in the urine of patients suffering from mumps, micrococci of a special form, isolated, or united together in pairs or in the form of zooglœa, also batonnets or rods similar to what are found in the saliva, but less numerous These results were constantly obtained in patients suffering from mumps Analogous researches were made on children in health, and the results were absolutely negative, a fact which shows that there is something specific in the disease called mumps, and the presence of microbes in the saliva and other liquids, would constitute an important element in the diagnosis of this affection

The contagion or infection may be effected either by the air passages, or by the salivary glands In these two hypotheses, it will be understood that the period of incubation will vary according to the number of microbes in the organism, and the power of resistance of the subjects This theory would equally explain the appearance of sub-maxillary adenopathy which often follows mumps It at the same time explains the swelling of the testicles or of the ovaries which used to be attributed to metastasis, a term that is becoming obsolete, as it is now admitted that the phenomena co-existing or immediately following the principal malady are merely other manifestations of the same morbid condition which originally gave rise, as in this case, to the parotitis If these organs are affected, it is no doubt owing to the quantity of microbes, or to the intensity of their nocive influence The elimination of the microbes is effected by the urine, and may in this way give rise to albuminuria It may thus be seen that these phenomena would afford a rational explanation of the symptoms or of the various complications of the malady under consideration

As the development and propagation of mumps are attributed to the presence of these micro organisms, mumps must be looked upon as an infectious or contagious malady, and should therefore be classed with small pox, measles, scarlet fever, etc , and hence the absolute necessity for establishing isolation wards for patients so affected This interesting communication was made at a meeting of the Paris Academy of Medicine about a week ago, and it was made over to the Commission of Hygiene for examination, as Dr Ollivier was a candidate for the membership of the Academy in that Section

On July 2 a man by the name of Gagny was guillotined at Troyes for murder Fifteen minutes after the execution transfusion with blood drawn from a dog was practised through the carotid arteries in the detached head In exciting the hemispheres the following phenomena were observed contractions of the eyelids, movements of the lower jaw , effects that were noticed for the first time on the head of Gamahut, who was guillotined in May last Reflex movements were obtained by exciting by means of an electric current divers nerves of the face and of the hands, as well as movements of the heart twenty minutes after the execution The experimenters drew particular attention to one circumstance the heart was blocked up by clots of blood, a phenomenon never before observed in these cases The conclusion was that the circulation of the blood was probably arrested some seconds before the execution, and what gave rise to the supposition was that Gagny, on approaching the scaffold became quite livid in the face It is supposed that at that moment the circulation was completely arrested

A bust to the memory of Dr Noel Gueneau de Mussy is to be placed in the Hôtel Dieu A subscription is being raised for the purpose by Drs Fercol Fernet and Huchard, who were formerly pupils of the lamented deceased gentleman

According to reports just received in Paris, the cholera is committing great ravages in Spain, particularly at Valencia and Aranjuez The panic is such that the people are leaving in great numbers, and those that remain are so bewildered that they are unable to attend to their usual occupations Even the pharmacies are closed supplies are exhausted, and the peasants refuse to take in any more to the infected towns Commerce is arrested, and what adds to the distress of the agriculturists is the interdiction by the French government of the importation from Spain of fruits and vegetables grown on the surface of, or under the soil

It appears that the glory of Dr Ferran, of Valencia who has made himself famous by his inoculations against cholera, will soon be on the wane, as it has been discovered that the method introduced by him as a prophylaxy against the disease is of no value Moreover, he has brought himself in disrepute by refusing to communicate unreservedly his mode of procedure, and the nature of the liquid he is employing for these inoculations

The mission from France, composed of Prof Brouardel and two assistants, was rather cavalierly received by Dr Ferran, and the members have returned to Paris quite indignant Professor Brouardel has sent in his report to the Minister of Commerce, by whom he was delegated on this important mission, and he also read it at the Academy of Medicine on Tuesday last Space will not permit me to enter fully into the report, but I may mention that Dr Brouardel stigmatizes Dr Ferran's inoculations as a purely commercial speculation and his secrecy is regarded as unworthy of a member of the profession to which he belongs

Paris, July 10, 1885 A B

DOMESTIC CORRESPONDENCE

THE INTERNATIONAL MEDICAL CONGRESS

Dear Sir —In an editorial in your issue of Aug 15, it was stated, on what authority I do not know, that I had withdrawn my declination of the secretaryship of the International Medical Congress of 1877, and consented to assume that office The truth is that up to the present moment no official notice of such nomination has been sent me, nor has any publication of it been made, to my knowledge, except in the *Medical News*, for July 4 I do not, however wish to make any point of this, but beg that you will afford me space for a plain statement, as brief as I can make it of the facts in regard to this matter

On or about the 1st of June, the chairman of what is now known as the enlarged committee told me that Dr Billings would probably decline the office of Secretary General and asked me if, in that case I would accept the nomination I told him I would not seek any office, but that if it should appear to be for the promotion of harmony and of the success of the Congress, and the *nomination were offered me*, I would seriously consider whether I could undertake the work

After the enlarged committee had met in Chicago, a meeting of physicians was called here to receive a report of what had been done I was at this meeting for a *few minutes only*, and did not hear the report or know that it concerned me Subsequently I was told that my nomination as Secretary General had been announced and that the impression had been conveyed that I had been a party to ousting Dr Billings in my favor—in other words, that I had *intrigued to obtain a place not vacant* I have since *been told by the Secretary* of the committee that my nomination came from an *outside* source, and without any prompting on the part of those with whom I might have been supposed to be in league How any one who knew me should think me capable of action so completely at variance with my whole life, I could not and cannot understand Yet I found myself under this *imputation*, and felt compelled to subscribe my name to the protest of June 29, lest my not doing so should give color to the idea that I had so schemed

There was another reason, not of a personal character, for my joining in the protest The enlarged *committee* had adopted a rule which limited the conditions of membership, so far as Americans were concerned, while it left to foreigners free and untrammeled admission Of this I could not approve I at once wrote to the Secretary of the Committee, and declined the nomination as Secretary-General in advance of official notification, on the grounds, that I was *informed that* Dr Billings had not intended to resign, but had done so *only* because of the action of the enlarged committee, that the committee originally appointed had resigned, and that it was likely that the change of management would cause forfeiture of the foreign support of the Congress as well as of much of that expected from the profession in this country This letter I have not withdrawn

When I understood that there was hope of a compromise being effected in regard to the matters in dispute, and the propositions looking thereto were shown me, it seemed to me that they were faulty in that they dealt with the American membership only, and I ventured to submit one simply defining the conditions upon which any one, American or foreign, might come in In handing this to Dr Shoemaker, I gave him also a note of explanation, in which I said that if anything better was offered, I would gladly accept it So far as I know, this was the only expression of mine which could be construed into a withdrawal from my former position

My own conviction is, that it is contrary to all precedent for the American Medical Association to assume any control of the management of the Congress, which is a body by itself, and the members of which will be in no sense the guests of the Association, or subject to it Were I Secretary General of the Congress, I should not consider myself the appointee of the American Medical Association, nor responsible to it in any degree

And while it is eminently proper that the profession all over the country should be welcomed to membership in the Congress, and to a full share in its proceedings, the Association does not seem to me to be, in its present form, a sufficiently representative body to undertake to insure this, even if it could properly claim the right to do so

I trust that you will bear with me in what is perhaps the wearisome length of this statement of facts and opinions, but it has seemed to me to be due not only to myself, but to those who have been kind enough to consider me worthy of nomination to office in the Congress

No one can regret more than myself the prospect of wreck of a scheme in which the credit of the American profession is so deeply involved, and to avert it, I would gladly do all in my power, but cannot sacrifice my personal honor, or stifle my convictions I am, sir, Very respectfully yours,

JOHN H PACKARD,

1924 Spruce St , Philadelphia, Aug 19, 1885

[We received two communications from Philadelphia, each stating that Dr Packard had withdrawn his resignation accompanied by no explanations or conditions These were the authority on which we made the announcement in the JOURNAL We have since learned from our correspondent that Dr Packard's proposition to withdraw his resignation was based on certain conditions concerning the Rule relating to the admission of members of the Congress, as shown in the above letter But as those conditions were already under consideration by the Committee of Arrangements and sanctioned by a large proportion of the members, our correspondent regarded the conditions as substantially complied with We certainly had no desire to misrepresent the position of Dr Packard in any possible way Neither do we think that our correspondent had any such intention, and we cheerfully give space to Dr Packard's letter in full —EDITOR]

LACERATION OF THE PERINEUM

Dear Sir An article entitled "Laceration of Female Perineum," in a recent number of the JOURNAL, by H V Sweringer, A M , M D , induces me to state my views on the subject, inasmuch as he recommends that this accident be left to nature, or deferred to a more convenient season, which is, in my opinion, unsurgical His belief that that woman never lived who, at full term with her first child, did not have some laceration of the perineum or fourchette, is certainly very remarkable I certainly have seen many lacerations, for I have for many years made a practice of making ocular examination of every case of labor as soon as the placenta has been delivered, and I am quite as certain that I have very frequently seen the fourchette escape entire in primiparæ at full time, even after the use of the forceps Extensive laceration will sometimes occur, whether there is skilled attendance present or none, and he who recognises such an accident, and fails to repair it at once, or within twenty-four hours, is, in my opinion, very culpable

The objections urged by Dr Hamilton, and quoted by the author of the paper—"that the operation at best is liable to fail," I question, "and is made under many surgical disadvantages, and when the patient, both mentally and physically, is in the worst possible position to bear it," I admit, but what are anæsthetics for if not for just such moments, when a few inhalations of ether will render her unconscious of pain I cannot understand how the vulvar fissure is to regain its normal condition unless the surfaces, while raw, are coapted and retained in a surgical manner by sutures or pins It seems to me that no medical man of experience who examines women will deny that women who go with this accident untreated are deformed, and suffer a great variety of evils in consequence thereof, which it is unnecessary to specify

The argument urged, that immediate union is difficult to obtain on account of the discharges, does not hold good If a proper position be maintained, and the limbs moved synchronously, flexion and extension may be indulged in as frequently as the patient desires, so long as both limbs are moved together, and this may be ensured if the knees are kept bandaged together If necessary, the patient can be kept for a few days absolutely prone, which will entirely prevent lodgment of discharges in the wound, and, to a great extent, contact with it I have practised this in several cases with perfect success, where the women had the courage to obey instructions, and out of a large number of cases of immediate operation by sutures in my hands, there has not been a single failure to unite

The prone position I consider of great importance to obtain the desired result, and this is not so very hard to bear if bolsters and pillows are dispensed with Sutures of carbolized silk are more easily introduced, more comfortable to the patient, and answer the purpose in my hands as well as metallic sutures Lint, saturated with carbolized oil, prevents septic condition The bowels may be moved daily without injury to the parts I would urge upon physicians the importance and necessity of making ocular inspections in all cases— at least, where there is a suspicion of lesion and repair it at once A large curved needle and some very coarse *carbolized* silk can be carried in one's pocket book, without trouble, and will be ever ready

Very truly yours,
R B BONTECOU, M D
TROY, N Y , Aug 20, 1885

MEDICAL POLITICS AND THE INTERNATIONAL CONGRESS

Dear Sir The *New York Medical Record* appears to be the most prominent mouthpiece for the disaffected and eminent men who are specially known to European medicine It is not a little singular that the *Medical Press* and the *Lancet*, of England, should only know these few disaffected but eminent physicians The medical men of this country know that Dr A Flint Sr, Dr Flint, Jr, Dr L A Sayre and Dr Frank H Hamilton have done more for American medicine and surgery than the majority of the malcontents who appear to be better known to British journals than to the American profession

It may be possible that our friends on the other side of the water do not know that we have almost sixty millions of people and about ninety thousand medical men of all grades, or, in round numbers one physician to every six hundred inhabitants In fact, the supply is greater than the demand It may be fairly stated that we have thirty thousand charlatans, including homœopaths, eclectics, etc The American Medical Association has excluded the above-named named classes from membership in its body Self-respect, as well as the dignity of the American profession, should lead every medical man, both at home and abroad, to view with disfavor and contempt every effort, on the part of a few, to give these men a place in the International Medical Congress of 1887 These are the only men who dive into "medical politics," with the exception of a few specialists in New York, who have made a code to correspond to their professional dignity

Probably the profession abroad is not aware that we are almost destitute of laws regulating the practice of medicine, and that there are only three or four States in the Union in which physicians are required to pass an examining board in order to obtain a license to practise medicine and surgery There are over one hundred medical schools in this country, and four fifths of them grant a diploma for an attendance of two sessions of from four to six months It may be readily understood, from the above statement of facts, that the American Medical Association, in dealing with the question as to who shall attend the International Medical Congress in this country, has the legitimate right to exclude men who practise "isms," or those who claim the privilege of consulting with them, to the detriment of the profession, however eminent they may be Wherever scientific medicine is practised the name of Sir James Paget is known Is it to be supposed that he would feel honored in hobnobbing with a celebrated "herbalist," or with the eminent homœopath, Dr Argendank, whom the *Medical Record* wishes to advertise in its issue of July 18, 1885

Yours respectfully J F JENKINS, M D
Tecumseh, Mich , August 25, 1885

BOOK REVIEWS

HAY FEVER ITS ETIOLOGY AND TREATMENT By MORELL MACKENZIE M D, London Third Edition London J A Churchill, 1885 (Autograph copy)

Among the many interesting communications to the profession upon this subject, none are more concise and yet so comprehensive as this Each of Dr Mackenzie's works is a model of literary ability and *scientific research and this one is fully up to his* standard Preferring the simple term "hay fever" to the many "magnificent titles" suggested by others, the author at once presents the history and progress of study of the disease, citing as the first detailed account the cases mentioned by Bostwick, in 1819 The historical part of such a work is by no means the least instructive and in this the bibliography is complete while throughout the whole narrative one can easily see the patient elimination of conclusion and fact from early hypothesis and theory

As to the etiology, after analyzing the views of others Dr Mackenzie frankly states that the predisposing cause is the possession of a peculiar idiosyncrasy but upon what that idiosyncrasy depends is quite unknown He does not believe it mainly due to chronic disease of the nose, because so few of the many sufferers from chronic catarrh have hay fever, and because most of those who suffer from hay fever appear to be perfectly healthy as regards the nose except during the short period of acute attack The circumstances which influence this idiosyncrasy are considered in detail As to the race, it is the English and Americans who are almost the only sufferers from this complaint, in temperament nearly all belong to the active, energetic class of so-called nervous organization One of the most singular features of this complaint is that it is almost exclusively confined to persons of some education, and generally to those of fair social position Dwellers in town are much more prone to hay fever than those who live in the country, and many more men than women suffer from the disease

Dr Mackenzie gives emphasis to the powerful influence of heredity In twenty-seven of sixty one cases, one or more near relatives had suffered in the previous generation, and he several times had treated a father and child at the same time In keeping with this the writer had under his care last autumn father, mother and son from one family, all the victims of hay fever The exciting cause is, without doubt, our author says, pollen, the essential factor in the cases of those who possess the peculiar predisposition The proposition that hay fever depends upon gross structural changes *within* the nose is not endorsed "Though in some of the American cases morbid conditions, such as hypertrophy of portions of the turbinated bones, and chronic rhinitis, have been found, such cases will prove in the end, I believe, to be the exception rather than the rule I have treated hundreds of cases of chronic diseases of the nose who have never been affected with hay fever" Dr Mackenzie also refers to patients who, having been operated on by others in accord with this theory, were afterward found by him to have received no benefit This is not in harmony with our best American authorities, although their views are fully discussed The true cause, the author says, after quoting Blackley's experiments, is the action of the pollen on the mucous membrane How? By the passage of the pollen granules—which are only one-tenth the size of the blood corpuscle—into the blood vessels by actual penetration of the walls Hence the *malaise* which is experienced in hay fever may be due to the presence of this granular matter in the general circulation If Mackenzie is right in this, we may not expect positive cures from any operative interference in such cases, for though by the galvano cautery and snare the ability of the nasal mucous membrane to receive the impression necessary to produce hay fever, is limited, yet the conjunctiva and the mucous membrane of the whole respiratory tract remains, and we know that these become affected, not, probably, because the nose is affected, but yielding to the same influence, though, generally latter

While we may know how the pollen so quickly irritates the mucous membrane of some, we do not know why, and as no special condition of the seat of disease seems to explain it, we are forced to the conclusion that an idiosyncrasy exists, *i e*, some condition which renders the capillaries in the mucous membrane of some, more liable than others to the penetration of pollen granules, or, absorbtion having taken place, causes a peculiar excitation in those who are by the possession of this idiosyncrasy, rendered susceptible

Holding these views, attempted radical treatment may not result in success "If the poison be continually introduced—as it will be during the season—the antidote, if one exists, can have but little chance of effecting a cure" Dr Mackenzie's treatment of hay fever is founded upon his conclusions regarding the nature of the disease Avoidance of the cause, *by a sea voyage or living in the city* during the period when pollen is given off, protection by means of *cotton in the nostrils* and a gauze veil, care for the nervous system and increasing its resistance to exciting causes, these are the main indications, not neglecting the conjunctivitis, asthma and general febrile condition which may be present

Report of the Department of Health, City of Chicago, for the Years 1883 and 1884

Chicago Geo K Hazlitt 1885

Those interested in public health, especially that of large cities, will find some very interesting and instructive reading in this Report of Health Commissioner De Wolf In the very beginning of the report Dr De Wolf justly criticises the useless bit of "red-tape" which gives the cleansing of streets to the Department of Public Works, and the cleansing of alleys and removal of house garbage from streets and alleys to the Department of Health On this point he says "The cleaning of a great city—and keeping it clean—is a labor of enormous magnitude, and of the most vital importance, and as there is really no demarcation between filth of the street and filth in the alleys, there should be no division of responsibility in its removal, and, in my opinion, one contract should cover the whole Such a course *should* ensure efficiency and economy"

In addition to the usual duties of factory, dwelling-house, work shop, meat and stockyards inspection falling to the lot of the health department of a large and rapidly-growing city, the Health Department of Chicago has a permanent nuisance on hand, which must be looked to at all times—the Chicago river, or perhaps, more properly speaking, the south fork of the south branch of the river What to do with the river is the question now occupying the attention of a great many who know something about it, but many more who know nothing Though, of course, not included in this report, it is pertinent to speak here of a very recent (about August 15) analysis of the water of Chicago It has been claimed and asserted that the drinking water of the city is necessarily contaminated by sewage (entering the lake and being pumped back to the city from the "crib") The recent analysis by Professor John H Long shows that the drinking water of the city is free from sewage, and that, in comparison with the waters of some of the large Eastern cities it ranks among the best, if not the best on the list

The Report also includes a detailed statement of the Bureau of Tenement and Factory Inspection, by Chief Inspector Gehnung, a report of the Registrar of Vital Statistics, a mortality report of the city for 1883 and 1884, which is very complete, a very suggestive report from the Smoke Inspector, a report of work performed by the sanitary police, meat inspectors, day scavenger service, licensed night scavengers and dead animal contractors, and a report from the small pox hospital

A comparison of the mortality percentage of Chicago with that of other large cities will show that the efficient Health Commissioner, in spite of the many disadvantages of political red-tape and topography of the city, does not confine his good work to the making of an interesting and instructive report

Second Report of the State Board of Health of the State of Tennessee, October, 1880–December, 1884

Published by Authority Nashville Albert B Tavel, 1885

When we consider the difficult struggle that the physicians of Tennessee have had for many years in inducing the State legislature to make provisions for a State Board of Health and the very niggardly manner in which that Board has been provided for by the State since its establishment, we are somewhat surprised that there is anything left of it to make a report And one of the first facts that meet the eye of the reader of the report is that not a dollar has ever been provided for chemical work to be done for the Board, in fact, the Board would have been entirely without a chemist had it not been for the liberal offer of Professor Lupton, of Vanderbilt University, who offered five years ago to do the work without recompense

The volume opens with the report of the Secretary, Dr J Berrien Lindsley, which occupies over two hundred pages This is followed by a report on School Hygiene, by Dr Daniel F Wright, a paper of some seventy pages In connection with this might be read with profit the succeeding paper on Physical Training at the State Normal School Gymnasium, which is only too short, by Mary E W Jones, the Director Following these are report on Vital Statistics in Tennessee, by Dr J D Plunkett, the report of the Committee on Prisons in Tennessee, by Dr P D Sims, a report on Epidemics and Contagious Diseases, as they prevailed in the State in 1881–1882, by G B Thornton, a report by Dr Plunkett on Bovine Tuberculosis, one on Abattoirs by Dr Thornton, and two others by him on Gulf Coast Quarantine and the Conferences of State Boards of Health Dr James M Stafford contributes a paper on the Natural Divisions of Tennessee in their Relation to Disease, which with the succeeding paper on the Medical Topography of the Valley of East Tennessee, are valuable contributions to the Medical Geography of the State The remaining paper in the Report is by Dr Plunkett, on Ozone, and its Relations to Public Health The volume closes with the usual reports of local and county boards, etc

Although this volume is not such as should come from a Board of Health which is in good working order, it is certainly due to no fault of the Board or of the individual members of it that it is not The papers and reports show that the present Board is such as would make an efficient body for the protection of the health of the State should the people arouse their law makers to a sense of their duty to themselves and to their neighbors The papers are instructive, and are evidence that the writers only need State provision to do good work in public health

A Correlation Theory of Color-Perception By Charles A Oliver, A M, M D One of the Ophthalmic and Aural Surgeons to the St Mary's Hospital, Philadelphia, Pa A reprint from the American Journal of the Medical Sciences, January and April, 1885

The author has carefully and patiently studied the many conflicting and opposing theories of color-perception, and has done much toward their elucidation and simplification Accepting the theory of undulation, and that a difference in the number of vibrations makes a change in the natural result, he makes three positive assertions

First—That as these actions are perceived, there must be organs able to appreciate them,

Second—That each series of organs must have an apparatus able to respond to the quality of its perceived impressions,

Third—That as all natural imponderable stimuli are the resultants of a mere difference in the number of vibrations of one and the same ether, the organs for the receipt of the different varieties must be but analogues and modifications of each other

The author very properly advises the discontinuance of the terms "anthropochromatopsia," "hypo-anthropochromatopsia," "pseudochromatopsia," and the substitution of the much better English expressions, "normal human color-perceptions" and "subnormal human color-perceptions" The latter is subdivided into acquired and congenital

The article shows much study and originality, and its careful perusal will fully repay anyone who wishes clearer ideas of how natural colors are perceived

A Text-book of Physiology By M Foster, M A, M D, F R S, Prælector in Physiology and Fellow of Trinity College, Cambridge Third American from the Fourth and Revised English Edition With Extensive Notes and Additions, by Edward T Reichert, M D, Demonstrator of Experimental Physiology in the University of Pennsylvania With 271 Illustrations Philadelphia Lea Brothers & Co, 1885 Chicago Jansen, McClurg & Co

For several years Foster's Physiology has occupied a peculiar and quite enviable position among the text-books on this most important branch of medicine In the highest sense scientific, it should nevertheless be the constant companion of every student of medicine who has some other work on this subject as a text-book To the student who is not engaged in special physiological study it should be his most constant book of reference, while to him who is specially engaged in physiological work it is an absolute necessity

The present edition has not been greatly changed, indeed, there are but few essential changes, except in the general make-up of the book Quite a number of good illustrations have been added, and additions have been made to the appendix on the "Chemical Basis of the Human Body," by Mr Sheridan Lea, who has had charge of this department of the work in this as in former editions

ASSOCIATION ITEMS.

MEMBERSHIP BY APPLICATION

At the meeting of the American Medical Association held at Washington, in May, 1884, an amendment to Regulation II was adopted, which provides that membership in the Association shall be obtainable by any member of a State or County Medical Society recognized by the Association, *upon application* endorsed by the President and Secretary of said Society, and shall be retained so long as he shall remain in good standing in his local Society, and shall pay his annual dues to the Association Hitherto attendance as a delegate at an annual meeting has been necessary in order to obtain such membership

Application for membership, accompanied with FIVE DOLLARS, for annual dues, and the Certificate of Membership in the local Society, should be sent directly to the undersigned, on receipt of which the weekly JOURNAL OF THE ASSOCIATION will be forwarded for one year

RICHARD J DUNGLISON, M D , *Treasurer*
Lock Box 1274, Philadelphia, Pa

MISCELLANEOUS

AMERICAN RHINOLOGICAL ASSOCIATION —The third annual meeting of the American Rhinological Association will be held at Lexington, Ky , October 6th, 1885 Papers and discussion will be devoted exclusively to the diseases of the nasal passages and their sequences The officers for 1885 are President, P W Logan, M D , Knoxville, Tenn , First Vice-President, A DeVilbiss, M D , Toledo, Ohio, Second Vice-President, J A Stucky, M D , Lexington, Ky , Recording Secretary, C A Sims, M D , St Joseph, Mo , Librarian, N R Gordon, M D , Springfield, Ill Information concerning the full programme, membership, papers, attendance, etc , may be learned from any of the above officers of the association

REMOVING MICROBES FROM WATER —PROFESSOR FRANKLAND has, we read in the *Journal of the Society of Arts*, recently made a series of experiments on the relative efficiency of filtration, agitation with solid particles, and precipitation, as a means of removing micro organisms from water His method was to determine the number of organisms present in a given volume of the water, before and after filtration The filtering materials were greensand, silver sand, powdered glass, brickdust, coke, animal charcoal, and spongy iron These materials were all used in the same state of division, being made to pass through a sieve of forty meshes to the inch Columns six inches in height were used It was found that only greensand, coke, animal charcoal, and spongy iron wholly removed the micro organisms from the water filtered through them, and that this power was lost in every case, after the filters had been in operation a month With the exception of the animal charcoal, however, all these substances, even after being in operation for a month, continued to remove a very considerable proportion of the organisms present in the unfiltered water, and in this respect coke and spongy iron occupied the first place Water containing micro-organisms was also agitated with various substances in the same state of division as above mentioned, and after subsidence of the suspended particles, the number of organisms remaining was determined A gramme of substance was in general agitated with 50 cubic centimètres of water for a period of about 15 minutes It was found that a great reduction in the number of organisms could be produced in this way, and the complete removal of all organisms by agitation with coke is especially to be remarked Precipitation by "Clark's process" also showed that it affords a means of greatly reducing the number of these organisms in water Dr Frankland concludes from his experiments, that, although the production in large quantities of sterilized potable water is a matter of great difficulty, involving the continual renewal of filtering materials, yet there are numerous and simple methods of treatment which secure a large reduction in the number of organisms present in water —*British Med Journ* , Aug 15, 1885

THE WILBUR SCHOOL AND HOME FOR FEEBLE MINDED CHILDREN at Kalamazoo, Michigan, was opened for the admission of inmates on Monday, August 3, 1885 All who wish to enter the present school year should make application to DR C T WILBUR, Kalamazoo, Mich

SECRETARIES OF COUNTY MEDICAL SOCIETIES throughout the United States are particularly requested to send the names and addresses of the members of the Societies to the JOURNAL at their early convenience

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM AUGUST 15 1885 TO AUGUST 21 1885

Col John Campbell, Surgeon, granted leave of absence for one month

First Lieutenant Francis J Ives, Asst Surgeon (recently appointed), ordered for duty in Dep't Platte (S O 184, A G O , Aug 13, 1885)

Wolverton, W D , Major and Surgeon, granted leave of absence for twenty days (Washington Bks , D C) (S O 171, Dept of the East, Aug 14, 1885)

Maus, L M , Capt and Asst Surgeon, in addition to his other duties, assigned to duty as attending surgeon of the Department, Rifle Camp (S O 83, Dept of Dakota, Aug 3, 1885)

Black, C S , First Lieutenant and Asst Surgeon, upon return of troops F and L Third Cavalry to Fort Davis, Tex , to rejoin his proper station, Ft Clark, Tex (S O 98, Dept of Texas, Aug 13, 1885)

McCaw, W D , First Lieutenant and Asst Surgeon, having reported back at these hdqrs from detached service, ordered to rejoin his proper station, Fort Lyon, Col (S O 122, Dept of the Missouri, Aug 17, 1885)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING AUGUST 22 1885

Denman, M C , Surgeon, Simon, Wm J , Surgeon, to temporary duty at Annapolis, Me , as members of Board for physical examination of candidates for admission to U S Naval Academy

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE TWO WEEKS ENDED AUGUST 22 1885

Bailhache, P H , Surgeon, granted thirty days' leave of absence, August 15, 1885 Chairman of Board to examine candidates for appointment as cadet in the Revenue Marine Service, Aug 19, 1885

Irwin, Fairfax, Passed Assistant Surgeon Recorder of Board, Aug 19, 1885

Bailhache, P H , Surgeon, to proceed to Delaware Breakwater Quarantine as Inspector, Aug 15, 1885

Stoner, George W , Surgeon, granted leave of absence for thirty days, Aug 10, 1885

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol V CHICAGO, SEPTEMBER 5, 1885 No 10

ORIGINAL ARTICLES

THE MINERAL FOODS AND HOW TO GIVE THEM[1]

BY R J NUNN, M D,
OF SAVANNAH GA

Huxley gives the following table of what a full grown man should weigh, and how this weight should be divided "Weight 154 pounds, made up thus Muscles and their appurtenances, 68 pounds, skeleton, 24 pounds, skin, 10½ pounds, fat, 28 pounds, brain, 3 pounds, thoracic viscera, 3¼ pounds, abdominal viscera, 11 pounds, blood which would drain from body, 7 pounds (*Med World*, Vol 3, p 8)" More or less rapidly these have all to be renewed, change is life, stagnation is death, to provide materials to rebuild the body, its bones, its muscles, its fat, its skin, its nerves, its viscera, etc, is one of the destinations of the food we consume, the other is to supply the force we require for existence, force to repair worn out tissues, force to think, force to labor, force to generate the heat necessary to the perfect working of the human machine,—for these purposes many and various elements are needed, and one or another constituent portion of the body may be starved by the absence from the food of the material necessary for its sustenance

Foods naturally divide themselves into two classes, the organic and the inorganic The organic foods are again divided into the plastic elements of nutrition (Liebig), the calorifient (Thomson), calorifacient (Pavy), the non nitrogenous or carbonaceous, and these have been subdivided into "1st, the hydrocarbons, fats, 2nd, the carbohydrates, starch, sugar, etc, and 3rd, principles such as alcohol and the vegetable acids, which do not strictly belong within either of the preceding groups" (Pavy)

The members of the organic group have been thoroughly discussed in all their bearings by numbers of eminent authorities, but the inorganic elements come in but for a very small share of attention We are told, it is true, that milk contains all the elements necessary to the building up of the body, although they are present in such proportions as to make it an unsuitable diet for an "adult population" (Chambers, p 23) Eggs, when the shells are included, furnish the necessary material to build up the body in all its parts, but our people do not eat the shells with their eggs Finally we are informed that "*if* we are supplied with nutritive salts through meat or other articles consumed, we can spare them without detriment from our bread" (Pavy) When the days of milk diet are past, and the era of candies and starches is entered upon, where the quantity of meat, and, indeed, most other nitrogenous foods, has been reduced to a minimum, and hot breads and cakes and various starchy pastes under fancy names are increased to the maximum, there is in fact, no source from which to draw a sufficient supply of the earthy foods Inorganic matter under the form of saline materials, and water are equally as essential for satisfying the requirements of life as the organic components of food Although such saline materials and water do not appear to be individually concerned in the interplay of changes which form the source of the phenomena of life, they nevertheless enter as essential elements into the constitution of the textures and fluids of the body, and thus must needs be supplied to an adequate extent to meet the requirements of nutrition and secretion with the food from without (Pavy)

The tone adopted by Dr Parkes when speaking of the mineral matters of the food seems to indicate that it is a path on which he treads with uncertain steps In the following quotations I have italicised some of those phrases which express the indecision of the writer as to the function and value of the mineral foods "The salts and water are as essential as the nitrogenous substances Lime, chiefly in the form of phosphate, is absent from no tissue, and *there is reason to think* ("Manual of Practical Hygiene," vol 1, p 207) no cell growth can go on without it, certainly in enlarging morbid growths and in rapidly-growing cells it is present in large amount Where phosphate of calcium was excluded from the diet the bones of an adult goat were not found by H Weiske to be poorer in lime, because *probably* lime was drawn from other parts, but the goat became weak and dull, so that nutrition was interfered with "

"Magnesia *is probably* also an essential constituent of growth in some tissues Potash and soda, in the forms of phosphates and chlorides, are equally important, and would seem to be especially concerned in the molecular currents Forming parts of almost all tissues, they are less fixed, so to speak, than the magnesian and lime salt It is also now certain that these two alkalies do not replace each other, and have a different distribution, and it is so far observable that the potash *seems* to be the alkali for the formed tissues, such as the blood cells or muscular fibre, while the soda salts are more largely contained in the intercellular fluids which bathe or encircle the tissues

---

[1] Read in the Section on Practical Medicine Materia Medica and Physiology at the Thirty Sixth Annual Meeting of the American Medical Association

The chlorine and phosphoric acids have also very peculiar properties, the former, *apparently* being easily set free, and then giving a very strong acid which has a special action on albuminates, and the latter having remarkable combining proportions with alkalies *Both are furnished in almost all foods*, the sodium chlorate also separately Iron is of course also essential for certain tissues or parts, especially for the red blood corpuscles and for the coloring matter in muscle, and, in small quantity is found almost in every tissue and in every food The sulphur and phosphorus of the tissues appear to enter specially as such with the albuminate "

"Some salts, especially those which form carbonates in the system, such as the lactates, tartrates, citrates, and acetates, give the alkalinity to the system which seems so necessary to the integrity of the molecular currents The state of malnutrition which in its highest degree we call scurvy, appears to follow inevitably on their absence " Compare this view with that of Pavy (p 17) ' These principles are hardly of sufficient importance in an alimentary point of view to call for their consideration under a distinct head "

Scurvy —In a description of the mode of living of the Icelanders given by Pavy (p 305), the inference is drawn that scurvy and leprosy, which are common on the island, result from an exclusively animal diet This conclusion seems to be rather strained, because no mention is made of the existence of similar diseases among the Esquimaux or the Greenlanders, or other nations who are likewise carnivorous, indeed, in another place (p 367), the author speaks of certain inhabitants of South America (Pampas Indians and Guachos) who are purely carnivorous, as being remarkable for their powers of endurance From this evidence it seems that we must look farther than the animal food for the cause of scurvy Has the absence of mineral food, and probably of albuminates also, anything to do with the production of scurvy? It is quite sure that certain of these are notably absent from the diet of the sailor, who is a well recognized subject for the disease The analysis by Girardin of brine shows that much of the nutritious matters, organic and mineral (phosphoric acid, lactic acid, magnesia) have passed out of the meat Liebig has reckoned the nutritive loss at one third, or even one half It appears from Kuhne's observations that myosin is soluble in a 10 per cent solution of chloride of sodium, and hence a large quantity of this substance necessarily passes into brine Analyses show, it is true, a large percentage of fibrin and cellular tissue in salt meat, but this is made up of indigestible nitrogenous substances which afford probably little real nutritive material" (Parkes, p 214) It does not require the eye of an expert to read here between the lines that the absence of mineral and nitrogenous foods would here be a powerful factor in production of scurvy

To be, if possible, a little more contradictory, Parkes (p 223) says "Men can be fed on meat for a long time, as a good deal of fat is then introduced, and if the meat be fresh (and raw) scurvy is not readily induced "

We will now examine the proportion of mineral matters to be found in various articles of food and in different dietaries

Composition of lean beef (Pavy)

Nitrogenous matter	19 3
Fat	3 6
Saline matter	5 1
Water	72 00
	100 0

A purely beef diet would require 3½ pounds to supply the amount of carbon necessary to sustain the human body in health (Chambers) This would be a waste of say 1½ pounds of meat, because the amount of nitrogen demanded by the system would be contained in about 2 pounds of beef, so that the remaining nitrogen would be useless It is not probable, however, that races of men living entirely upon meat, as, for example, the Pampas Indians would be much troubled with the scientific economy of their diet It is safe, then, to assume that the minimum of meat consumed under these circumstances would be 3½ pounds, which give 1,2,00 grains, say 3 ozs (av) of salts

Let us now turn to some of the dietaries, and see how they have been provided with inorganic foods

Subsistence diet (Pavy)

Nitrogenous matter	2 33
Fat	0 34
Carbohydrate	11 69
Mineral matter, none	

Diet of adult in full health with moderate exercise (Pavy) The dietaries of the English, French, Prussian and Austrian soldiers during peace are taken as the basis of this class The mean of these dietaries stands as follows

Nitrogenous matter	4 215
Fat	1 397
Carbohydrate	18 690
Mineral matter	0 714

About 357 grains of mineral matter, being less than one third the normal amount

Diet of active laborers (Pavy) To represent this class Dr Playfair has put together the dietaries of soldiers engaged in the arduous duties of warfare, English, French, Prussian, Austrian, Russian, Dutch, Federal and Confederate

The mean of the above gives the following quantities "

Nitrogenous matter	5 41
Fat	2 41
Carbohydrates	17 92
Mineral matter	0 08

The dietetic value of the food of the Royal Engineers is given as follows (Pavy)

Nitrogenous matter	5 08
Fat	2 91
Carbohydrates	22 22
Mineral matter	0 93

Diet of hard working laborers (Pavy)

Nitrogenous matter	5 64
Fat	2 34
Carbohydrates	20 41

The preceding is deduced from the dietary of the English navy in the Crimea, laborers working on the Rouen railway, weavers, tailors, blacksmiths, and English and French sailors

Diet of the English soldier on home service (Pavy)

	OUNCES
Nitrogenous matter	3 86
Fat	1 30
Carbohydrates	17 35
Mineral matter	0 808

This is according to Dr Parkes

Dr Playfair's analysis makes the organic matter higher and the mineral matter somewhat less

Nitrogenous matter	4 250
Fat	1 665
Carbohydrates	18 541
Mineral matter	0 789

Prison diet presents the extraordinary fact that more mineral matter is present in it than in those just mentioned, thus

	OUNCES
Hard labor diet, per diem	
Mineral matter	1 963
Light labor diet, per diem	
Mineral matter	1 715
Industrial employment diet, per diem	
Mineral matter	1 616
Penal diet, per diem	
Mineral matter	0 972
Punishment diet, per diem	
Mineral matter	0 368

In many of the analyses of diet no mention is made of the mineral matter, showing the low estimate placed upon its value as a nutritive element by the various writers upon the subject of dietetics Of course it must have been present, but perhaps in very minute quantity, and be it further remarked, that the analyses which are given do not suggest the condition in which the mineral matters exist in the diet, for it must not be forgotten that while showing well in chemical investigations, they may be in such a state as to be wholly indigestible

Wheat flour in some form constitutes the principal food of the persons with whom we have to deal, and if the higher grades of wheat are taken as examples, and if the whole grain could be digested and assimilated, its chemical composition would leave little to be desired, containing,

Nitrogenous matter	22 75
Starch	58 62
Dextrine, etc	9 50
Cellulose	3 50
Fatty matter	2 61
Mineral matter	3 02
	100 00

Unfortunately, however, most of the mineral matter is in a condition to pass undigested through the alimentary canal, even if employed as food, but in reality it is nearly all removed during the process of manufacture into flour, so that the proportion left is but 1 7 to 1 60, and this probably of undigestible matter Neither in the vegetable nor in the mineral kingdom can we find any digestible substance having the chemical composition or the mechanical construction of bone Strange indeed as it may appear, chemists seem to be somewhat divided as to the arrangement of its elements

"It was Scheele who announced that the earthy part of the bones is phosphate of lime A hundred parts of fresh bone are reduced to about sixty by calcination"

"According to the analysis of M Berzelius, human bones deprived of water and fat have the following composition Animal matter reducible to gelatine by decoction, 32 17, insoluble animal substance, 1 13, phosphate of lime, 51 4, carbonate of lime, 11 30, fluate of lime, 2 0, phosphate of magnesia, 1 16, soda and muriate of soda, 1 20

"Fourcroy and M Vauquelin, in their first trials, did not find phosphate of magnesia in human bones According to M Hildebrandt, there is none of that substance in them According to Dr Hatchett, there is sulphate of lime in them, which, according to M Berzelius, is a product of calcination Lastly, Fourcroy and Vauquelin admit moreover in the bones, iron, magnesia, silica, alumina, and phosphate of ammonia, but no fluate" (Beclard's Anatomy, pp 259, 260

"The bones of different animals differ somewhat in composition With reference to the bones of *mammalia* the following has been established Those of herbivora are somewhat richer in carbonate of lime than those of carnivora, those of pachydomata and cetacea are particularly rich in it" (Lehman's Chemical Physiology, p 205)

The analysis by Marchand gives

Organic matter	
Cartilage insoluble in hydrochloric acid	27 23
Cartilage soluble in hydrochloric acid	5 02
Vessels	1 01
Inorganic matter	
Phosphate of lime	52 26
Fluoride of calcium	1 00
Carbonate of lime	10 21
Phosphate of magnesia	1 05
Soda	92
Chloride of sodium	0 25
Oxides of iron and manganese and loss	1 05
	100 00

Von Bibra's figures are as follows

Organic matter	
Cartilage	29 54
Fat	1 82
Inorganic matter	
Phosphate of lime with a little fluoride of calcium	57 42
Carbonate of lime	8 92
Phosphate of magnesia	1 70
Soluble salts	0 60
	100 00

"According to Dr Stark, the relative proportions of cartilaginous and earthy matter in the bone of different animals, in the bones of the same animal at different ages, and in the different bones of the same body, never depart widely from the preceding standard, the amount of earthy matter being always found to be just double that of the cartilaginous basis when the bones have been carefully freed from oily matter and completely dried previous to analysis The hardness of the bone, he maintains, does not at all depend upon an unusually large proportion of earthy matter, nor does their increased flexibility and tran parency indicate a deficiency of the mineral ingredients, for the transparent, readily cut bones of fish contain the same amount of earthy matter in proportion to their gelatinous basis as do the dense, ivory-like bones of the deer or sheep. The same holds good of the bones even of the so called cartilaginous fish. The difference appears to depend upon the molecular arrangement of the ultimate particles, and especially, it seems likely, upon the relative amount of water which the bones contain." (Carpenter's Physiology, p. 271.)

To be of any real advantage, the minerals must become a portion of the food of the people. It is not to be expected that each will take a dose of syrup or elixir, or a powder or a pill at each meal. It will not be done. The mineral food must be in the bread, in the cakes, in the soup, it must be everywhere in sufficient quantity to effect its mission, but without permitting its presence to be detected by any change of flavor, odor or appearance. Is there any thing which will fulfil these requirements? So long as chemists are not agreed upon the real nature or constitution of the bony structures of the body, it certainly must be a fruitless task to endeavor to manufacture an artificial substitute for the natural product, and moreover, the cellular structure of bone can never be successfully imitated. It is more than probable, therefore, that bones will in the near future form the staple food of civilized man.

Taking phosphorous as an example of mineral foods, let us briefly examine the effects of a famine of phosphorous. If it is conceded that phosphorous is a necessary nerve food, it follows that the absence of it means nerve starvation, and a consequent proportionate inability to perform any work requiring nervous energy. Beginning with fœtal life, we would naturally expect that the results would be seen in imperfectly developed, weakly children. Such doubtless would be the consequence but that there exists in the osseous structure of the mother an ample store from which the fœtus can draw its supply. In growing children we would expect to find a deficiency of the osseous structures, with nervous debility manifesting itself in various ways, amongst others, an increasing inability to do school work. Passing along a little farther we find (especially among the females) children breaking down before they are well grown. They have the years of youth with the diseases of old age.

Among adults various forms of nervous weakness become manifest (the neurasthenias of Beard), and in childbearing women there are in addition the evidences of direct absorption in the teeth and alveolar process. Each of the tissues of the body shows the effects of the absence of the proper nerve food. The starved nerve tells its tale of starvation through the language of a neuralgia. Aching and enfeebled muscles remind us of slowness of tissue repair, eruptions on the skin and catarrhs of mucous membranes show diminished nerve power in the tissue. Decaying and loosing teeth become evidences of unhealthiness or of the absorption of the osseous system. Thus will each tissue unmistakably demonstrate the condition of starvation in which it finds itself.

Man certainly enters upon life as a carnivorous animal, living upon animal food in a liquid form, milk. If, during the early months of his existence, gastric or intestinal irritation should come on, so that milk will disagree with him, passing through undigested or producing unpleasant symptoms, then will the expressed juice of beef be found to be the best nutriment that can be administered, not excepting white of egg.

If the child is permitted to follow the bent of his own inclination, his next dietetic step will be to meat. It is rare indeed to find a child who will refuse meat, most of them take to it ravenously, not unfrequently eating it raw by preference, but the child is coaxed or punished out of this natural taste, and "*nolens volens*" becomes more or less a vegetarian, generally a little more.

While the strength and the robustness of vigorous manhood are upon him a man tolerates this vegetable diet, but sooner or later there comes a time when the organs lose their power of digesting these substances, and a more generous animal diet is required to stimulate and invigorate the decaying man.

Finally comes the stage of senile decay, when a little milk or beef juice or nourishment of that class is all that will be tolerated. The dietetic circle is complete; second childhood is here, and the individual sinks slowly, peacefully and unconsciously back into the earth whence he came.

Such would be the course of human existence could it run smoothly and uninterruptedly to its natural end, but accidents and diseases, the latter being in a great degree the consequences of our hygienic transgressions, more frequently terminate what would otherwise be a long and perhaps useful life.

Parkes, p. 206, makes by implication a statement disparaging to the effects of a purely animal diet. When speaking of the possibility of substituting carbohydrates for fats, "if so," says he, "a man could live in perfect health on a diet composed only of fat-free meat and starch with salts and water, just as he can certainly live (*though perhaps not in the highest health*) on meat, fat, salts and water." If now we turn to the personal experience of Sir Francis Head and others quoted by Pavy, p. 307, we find statements quite at variance with this idea of Parkes'. He says: In "F. B. Head's Journeys Across the Pampas" (page 307, op. cit.) is an interesting description of the Indians who inhabit the vast unknown plains of the pampas. "In spite of the climate, which is burning hot in summer and freezing in winter, these brave men, who have never yet been subdued, are entirely naked, and have not even a covering for their head. They have neither bread, fruit, nor vegetables, but *they subsist entirely on the flesh of their mares*.[1] The ground is the bed on which, from their infancy, they have always slept. The flesh of mares is the food on which they have been accustomed to subsist."

Sir Francis Head, when crossing the pampas, got tired at first with the constant galloping, and was forced to ride in a carriage, after five or six hours on horseback. "But after," says he, "I had been riding for three or four months and had lived on beef and water, I found myself in a condition which I can only describe by saying that I felt no exertion could tire me Although I constantly arrived so exhausted that I could not speak, yet a few hours' sleep upon my saddle, on the ground, always so completely restored me that for a week I could daily be upon my horse before sunrise and could ride till two or three hours after sunset, and have really tired ten or twelve horses a day This will explain the immense distances which people in South America are said to ride, and which I am confident could only be done on beef and water" (op cit, 307) Again, "We find a people living between the twentieth and fortieth parallels of latitude in the Argentine Republic, known as Guachos (the half white inhabitants of the pampas) They are a mixed race, of Indian and Spanish blood, who are employed at the ranchos, or great cattle stations, and spend the greater part of their time on horseback in hunting the half-wild cattle which roam over the wide grassy plains extending from the Atlantic coast to the foot of the Andes * Those people live entirely on roast beef with a little salt, scarcely ever tasting farinaceous or other vegetable food, and their sole beverage is mati, or Paraguay tea, taken without sugar" (Odontological Society's Transactions, Vol II, New Series, p 44, op cit 307)

---

[1] The italics are mine.—R. J. N.

That man in his natural condition is a carnivorous animal, is evidenced by prehistoric finds in caves, in the kitchen middens (kjokken moeddings), in mounds, tumuli or burrows or tombs, and by cromlechs, or dolmens, which have already been discovered and explored in various parts of Europe, and which doubtless exist in various portions of the world During the many thousands of years embraced in the paleolithic period, the life of the human dweller upon this globe was that of a hunter, and his food the result of the chase Not only had he not learned to till the ground, but he had not even arrived at the domestication of an animal of any kind ("Dawn of History," by C F Kearz, A M, p 15, et seq) "According to Dr Hyades, who has lately returned from Tierra del Fuego, whither he was despatched on a mission by the French government, the Fuegians are the lowest human beings in the scale of existence The language contains no word for any number above three, they are unable to distinguish one color from another, they have no religion and no funeral rites, and they possess neither chief nor slaves Their only weapons are bone pointed spears, they grow neither fruit nor vegetables, and as their country is naturally barren, they are obliged to live entirely on animal food But they are not cannibals, they ill-treat neither their women nor their old people, and they are monogamous" (*Brit Med Jour*, March 7, 1885, p 482)

Dr Livingston says "When the Makololo go on a foray, as they sometimes do a month distant, many of the subject tribes who accompany them, being grain eaters, perish from sheer fatigue, while the beef eaters scorn the idea of even being tired" (Pavy, p 340) Dr Pavy's own opinions on this subject cannot be better expressed than by the following quotations "Lean meat has always entered largely into the diet for training, and experience shows that it contributes in a higher degree than other food to the development of strength and energy If we look at the lower animals and compare the carnivora with the herbivora we notice a striking contrast in their muscular vigor and activity It has been ascertained physiologically that animal food disposes to the removal of superfluous water (xx) and fat, and makes the muscles firm and rich in solid constituents The accounts that are furnished by travelers point to the aptitude of a meat diet for increasing the power of performing muscular exertion" It is asserted that the length of the intestine in a full grown ox is 150 feet, while in the man the length is 32 feet In proportion to the length of the animal this would give in round numbers for the ox 15 feet of intestine to 1 of length for the man 5 to one, while the lion is set down as having but 3 to 1 The development of the cecum in man also shows a leaning toward the carnivora" (Pavy, p 317)

The action of the jaws in the human being during mastication is not that of grinding, as in the ruminantes, and is therefore unfitted to reduce vegetable fibre to a pulpy condition, such as would render it digestible by human digestive organs of ordinary activity On the contrary, the motion is one rather of compression and more suited for cutting and squeezing, and is the one likely to prove most efficacious in the mastication of meat

Among the teeth the carnivorous teeth predominate The simplicity of the digestive apparatus is that of the carnivora "In the bile of the carnivora and of man the golden red color is caused by bilirubin ($C_{16}H_{18}N_{2}O_{3}$) In the herbivora the green tint is due to biliverdin ($C_{16}H_{18}N_{2}O_{4}$) Bile salts are chiefly *sodium glycocholate* and *taurocholate* In the bile of the herbivora glycocholate is in excess, in that of man and carnivora, taurocholate" (Dr J C Draper)

In man also the chemical constitution of the urine resembles more that of the carnivora than that of the herbivora Those interested in the antiseptic action of the bile salts will find a very interesting résumé of the subject in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, March 21, 1887, p 325 The relatively great length of the bowels in the herbivora would indicate that the "succus entericus" is much concerned in the digestion of vegetable foods, hence it would follow that while the herbivora might readily live upon animal food, it would be difficult for the carnivora to subsist upon a vegetable diet In the herbivora there would simply be an excess of digestive powers, in the carnivora there would be a want of it, and so we find that in its efforts to accommodate itself to its changed diet, the originally short intestinal canal of the wild-cat has been lengthened in the domesticated animal

From what has been brought forward it seems self-evident that the most natural place in which to seek for our mineral foods is among the animal structures themselves In the bone we find ready at our hand all the elements required, each in its due proportion, and we need no longer trouble ourselves with the dispute going on among chemists as to the precise condition of combination in which they exist The bone waste and dust caused by sawing and other mechanical operations in the manufacture of various articles from bone, are used to feed cattle and poultry (*Scientific American*, January, 1885, p 551) "Dadd's Veterinary Medicine, p 370, suggests use of 'flour of bone' for dogs in need of phosphates English patent No 891, of A D 1862, describes a food for dogs and other animals in which bone flour and barley meal are ingredients "

Of course it may be objected there is not of necessity any parallelism between the effects of such food upon animals and upon man "Animal nitrogenous substances appear to be more easily digested than vegetable " And as with nitrogenous substances so it is believed that animal fats are more easy of digestion or preparation for absorption than vegetable, (mineral fats or oils are entirely outside the discussion, as they come more within the domain of therapeutics,) the vegetable oils being usually more or less cathartic It is not reasonable to suppose that the mineral matters will form an exception to this rule But, *on the contrary, analogy would lead us* to argue that whereas, animal products of other kinds are most easily digested by man, that, therefore would bone be the most suitable form in which to give the mineral food

In all chemical operations upon solid matters the rapidity and ease of reaction is increased in proportion to the minuteness of the subdivision, this rule holds good also in its application to the digestive process, and therefore it was not for a moment imagined that solid particles of bone of any considerable size could be either ingested with comfort or digested afterwards There may have been a time when the human stomach was equal to such a performance, but it certainly is not in this our day It is essential therefore that the bones should be reduced to the smallest possible state of mechanical subdivision, to an impalpable powder, as a condition precedent to their employment as a food adjunct

Bone Flour —To obtain pure, fresh, healthy bones in an impalpable powder was a problem which seemed to me most difficult of solution, but the business enterprise of Messrs Parke, Davis & Co came to the rescue, and this firm, at my solicitation, undertook the manufacture, and is now supplying a most elegant preparation, in fact the only one in the market The firm write to me as follows "In this preparation we have employed the cleanest bones that were attainable, and thoroughly cleansed them of all foreign matter, then gradually reduced them to dryness in a low temperature, and finally powdered them in our chasers And we believe that no portion of our process has permitted of the contamination of objectionable features "

Bone flour is not brought before the Association as a medicine, the very nature of the rôle it is intended to fill removes it from the list of remedies, of pharmaceutical preparations proper, and places it among the foods It, from its very nature, is a diet, and its use is intended to rectify one of the dietetic mistakes which has descended to us from past generations and has been faithfully perpetuated by the present with constantly increasing strength and multiplying disastrous results, viz the sifting out of mineral matters from the food, the tendency to live exclusively upon purely nitrogenous and carbonaceous alimentary substances It is intended in some degree to offset the evil effects of the sedulously cultivated taste for a diet composed of sugar and starch in very abnormal proportions

The quantity of bone flour which should be consumed is an important question Pavy says, p 322 "The amount of mineral matter required may be set down at from three fourths ounce to one ounce daily " But he fails to say by what reasoning or upon what evidence he arrives at this conclusion Probably one of the best roads to a solution of this question would be to assume man to be a flesh eating animal and then to give him the same amount of mineral matter which he could receive if he was subsisting entirely upon meat Nothing can be easier than the administration of bone flour Being tasteless and in the state of impalpable powder, it can be given in breads, cakes, soups, or any medium thick *enough to hold it in suspension for a few minutes*

Much remains to be said upon this subject, but the constantly increasing length of this already too voluminous paper warns me that I must reserve the further discussion of this matter to a future occasion

---

THE TREATMENT OF UTERINE FLEXURES BY THE INTRA-UTERINE STEM[1]

BY GEORGE B FUNDENBERG, M D ,

OF PITTSBURGH PA

I desire to make a plea for the more frequent use of the intra uterine stem in flexures of the uterine body *I am convinced that this mode of cure* is not practised as often as it should be, and that it is capable of affording relief in many cases which can be attained by no other method We all know that there is a very general distrust of the intra-uterine stem among the large body of medical practitioners —a distrust which is not born of experience, as it can be proved that at least one half of the regular practitioners of medicine in the United States have not even given the instrument a single trial

Their disinclination to use it arises simply from the reports which are given in the leading text books on gynecology, in which the dangers and disasters following its use are more emphatically referred to than the advantages to be derived from it I am quite certain that the opinions expressed on this subject by certain of our leading authors are not the outcome of impartial, painstaking and numerous trials, but are much rather to be attributed to a natural desire to guard the less expert part of the profession from the supposed dangers attending the method, and I believe that many of the bad results which have attended the practice have arisen from one or all of the following causes 1 To its application in improper cases, 2 To its introduction without preparatory treatment; 3. To the attempt to straighten a chronically flexed womb by the introduction of either a rigid or elastic stem.

---

[1] Read in the Section of Obstetrics and Gynecology at the Thirty Sixth Annual Meeting of the American Medical Association

This fear of the stem has induced practitioners to attempt the cure of flexures by manifold devices, many of which have enthusiastic supporters. In an excellent paper read by Dr. W. D. Kearns, at a late meeting of the Pittsburgh Obstetrical Society, the cure of flexures by instrumental dilatation was very highly praised. He stated that he had cured many cases by dilatation, and the same result was stated to have followed its use in other hands.

I have much faith in rapid instrumental dilatation in various conditions of the womb, having practised it freely during the past fifteen years. I have never seen any cellulitis or other form of danger follow its use, except in a single instance, in which a sharp attack of cellulitis followed its injudicious use in a patient with whom a former attack yet lingered in a latent form. I esteem it so highly that I shall never again incise the os internum so long as I can, by divulsion produce the same result without an open wound, and consequently without any danger of hæmorrhage, cellulitis or septicæmia, for, the mucous membrane being elastic and distensible in a high degree, suffers an extreme degree of tension without rupture. I do not think I have ever cured a decided flexure by dilatation, and, indeed, how a dilatation of the cervix could remove a bend in the uterine body seems rather difficult to understand. Neither have I cured any chronic cases by pessaries or by the genu-pectoral posture. By both these measures the fundus can be raised to a higher plane in the pelvis, but neither are capable of *unfolding* or straightening the uterus.

I am afraid that many of the supposed cures of flexion by dilatation are only apparent. It is well known that many of these cases are accompanied by stenosis at the os internum, and, therefore, dilatation, which removes the stricture and its train of symptoms, is credited with the cure of the flexure, whereas it only removes one of its complications. Slight and recent cases may be cured by intravaginal support, and, perhaps, by dilatation, but when we meet with old, retort-shaped flexures, in which the uterus has *grown* into distortion, we have but *one* remedy, and that is the *intra uterine stem*.

The use of the stem has been subject to the same changes of opinion which have characterised many other methods of treatment. From the time when Prof. Simpson, in 1848, gave his first report of its use, up to the present period, it has been both lauded and denounced in unmeasured terms. It would require more time than can be given now even to mention the names of those who have introduced new shapes and new material. At a single meeting of the London Obstetrical Society, in 1873, three gentlemen presented each a new form of the instrument. At the present time the greatest diversity of opinion exists among our leading gynecologists. Prof. Thomas thinks it should only be employed in rare and obstinate cases. He believes that a large proportion of cases can be relieved by vaginal support. And I have no doubt but that he does relieve his cases in many instances by his admirable tact in the use of pessaries, but to relieve the most urgent symptoms by vaginal support is not to cure the flexure, and generally compels the patient to wear an instrument during the continuance of her menstrual life.

Dr. Goodell, who formerly said, ironically, that the intra uterine stem was a very good instrument indeed —*to watch*, now says that a riper experience has wholly changed his views, and that there are many cases which can be satisfactorily treated in no other way.

Dr. Emmett denounces both the use of the stem and the use of dilators in the treatment of flexures as irrational and dangerous. He prefers, even in flexures of the body, surgical interference. He states, however, that he has cured retroflexion by the long continued use of hot-water injections, by hot baths, by blistering the cervix in order to deplete by the watery discharge, by daily glycerine dressings, by careful attention to the bowels and to the general condition. And, in addition to all this, he directs that by degrees, as the tenderness subsides, the fundus should be lifted, day after day, as far as possible by the finger in the rectum. He states that he has succeeded, by these means, after months of daily manipulations, in restoring the uterus to position. I have no doubt but that this method will succeed in a certain number of recent cases, but even if a case were cured now and then by this tedious method, the questions would remain—How many would *not* be cured by it? How many patients would submit to such treatment long enough, or would be in circumstances to undergo it? If, then, we have a method which will render such long continued manipulations unnecessary, and which, with proper precautions, can be proven to be as safe as any other, why should we not adopt it? That occasional trouble may follow the introduction of the stem cannot be disputed, but when intelligent precautions are taken, the treatment will compare favorably with other methods, and will far surpass in safety any surgical operations.

A stem should never be introduced into a congested womb without previous treatment. Even the successful application of a vaginal pessary requires this. If there be considerable tenderness upon pressure, or if there be evidence of previous cellulitis, or any other lingering chronic inflammation of the pelvic tissues, a preparatory treatment is absolutely necessary. If the uterus be heavy, and sinks into pelvis, it should be lifted up by glycerine dressings, keeping the patient in the recumbent position for a number of days and saline aperients given to deplete the pelvic tissues. When the fundus has remained in the hollow of the sacrum for some length of time, considerable congestion almost invariably exists, attended with complicatious due to obstructed circulation.

I have no doubt you are all familiar with various kinds of stem pessaries. It is unnecessary to go over the list of the different kinds that have been devised. Their name is legion, composed of wood, rubber, metal, glass, and porcelain, some stiff and unyielding, some elastic and furnished with springs Last and least, a split stem, which when introduced springs apart and so holds itself in place whilst dilating the uterine cavity I hold that in all these stems the proper principle is violated The chronically flexed womb cannot be straightened by force, nor even by a constant propulsive force as given by a spring The only successful method that I know consists in gaining the desired position by short steps, with considerable intervals of *rest* between them, giving time thus for all irritation to subside, and the newly awaked nutritive forces ability to build up the long innutrition of the flexed point I do not doubt that many chronic flexures can be cured in this manner, not excepting many congenital cases, for the building up of lost tissue can only be accomplished when entire absence of irritation and absolute rest are obtained, conditions which cannot exist when an unceasing irritating force is in operation The result of efforts to forcibly straighten the womb is in no sense curative, for the unceasing irritation calls into action the formative power of the organ, and a hyperplastic deposit occurs, in the walls of the uterus, which becomes heavier and congested, a condition being thus established more formidable than the one attempted to be removed, for hyperplasia is not nutrition I show you here a form devised by Dr *Chadwick, of Boston You will observe that this* delicate stem is elastic, and in this differs from most others Introduce a stem like this, and if the womb has even a slight tendency to return to its flexed condition, the result will be that sooner or later this stem with its minute bulb will have buried itself in the soft and infiltrated walls of the uterus, but if the tendency to flexion be strong, as is usually the case, there will be hæmorrhage and such an amount of irritation, in a short time, as to compel its removal Apart from these objections, the instrument has good points If one wished to straighten a twig which had grown into an acute bend, he would not attempt to force it into a straight form at one effort but you would apply such a moderate force as would compel the twig to *grow* straight And the same practice lies at the foundation of the treatment of flexures with the uterine stem

I have also an instrument which I have used with much gratification, and in the application of which the principle just announced is observed It is made of hard rubber, and when heated can be bent into any desired curve The part which rests in the uterine cavity is shaped like the cavity of the womb, flattened antero-posteriorly, and has a narrow stem passing through the cervix and os internum It has a slight flange which tends to retain it in the uterine cavity The button below is so large that it cannot pass into the cervical canal The depth of the uterus is ascertained by the probe, and the stem is always one-fourth of an inch less in length than the measurement given by the probe In using this instrument, I never pass *it straight* When first introduced I bend it into the shape of the flexed uterine canal, making no attempt to straighten the the flexure until tolerance of the foreign body is established It is then withdrawn and its exact curve outlined on paper It is now bent to the slightest possible extent, lessening its curve by the aid of the outline, so that the lightest possible impression is made upon the uterine wall It is now re-introduced, and after a variable interval, generally two or three weeks, is again withdrawn and bent in the same manner until the desired position is gained Thus no force is used, no continued irritation produced, and nutrition *is not prevented by irritation*

In regard to the various methods for retaining the stem, the ingenious plan of Dr Chadwick is in many cases excellent This consists of a wire hook attached to the button and embracing an elastic ring pessary But I have found that in a large majority of cases the curved stem will be retained when a rigid or elastic one would be thrust from the uterine cavity I will say that I do not advocate the indiscriminate use of the stem in all flexures There are many which, as they produce no inconvenience, should not be treated at all There are others which cannot be successfully treated in this way on account of complications But there are left yet a large number which are best treated by the stem

I have used the stem in at least fifty cases, and have had no alarming results I have at present four patients who are wearing them, one of them has worn this pattern continuously during the last eighteen *months, and has never suffered any inconvenience* from it She has an intra mural fibroid which drags the fundus down into an antero-lateral position The instrument has come away several times at the menstrual period, and she has always come immediately to have it replaced, as she cannot walk comfortably without it

In a discussion on a paper read by Dr Van de Warker before the American Gynecological Society, on the intra uterine stem, Prof Thomas, commenting upon the dangers attending the practice, remarked that it was not surprising that an organ like the uterus, which often resented the cautious introduction of the probe, the injection of a few drops of water, the retention of a slender roll of soft cotton and gradual dilatation by tents, should not tolerate the *stem But there are generally two sides to every* question It is true that in certain conditions of the lining membrane of the womb, the slightest irritations are violently resented, but these are not the conditions that exist in flexures that are chronic Every practitioner who has made intra-uterine applications with the probe or applicator knows with what impunity the most violent caustics may be applied in chronic affections of the endometrium, such as nitrate of silver and nitric acid An applicator, wrapped with cotton, may be dipped in one of these solutions and applied to the entire lining membrane of the womb and moved about freely in its cavity without producing any pain whatever Such applications to a womb with normal nerves, not blunted in their sensibility by long continued congestion, would produce not only exquisite pain, but most probably dangerous inflammation When writers fail to make these distinctions they miss the mark widely

In conclusion, I have only to say that the disrepute into which the intra-uterine stem has fallen, is largely owing to the fact that the proper principles which should govern their use have not been regarded. We need not be surprised when violent inflammations and intolerable irritations follow the hap hazard use of the stem. We should only be surprised that no greater mischiefs occur under such methods.

A FUTURE FOR PULMONIC SURGERY.

BY E. WYLLYS ANDREWS, A.M., M.D.,

MERCY HOSPITAL, CHICAGO.

The coming triumph of antiseptics, if we may hazard a guess, lies in the perfection, or more properly the creation, of the science of pulmonary surgery. I say creation of this branch, because so little has the subject as yet been investigated, that we do not even know at present the most elementary facts in it to any certainty. So few experiments have been made, and so few cases reported, that practically a surgeon who now undertakes an operation upon the lungs has to base his hope of success upon theoretical considerations.

But that on theoretical grounds a large number of cases of diseased lungs could be benefited by surgical treatment were we once assured of its being safe and justifiable, no one will doubt. If, also, operations through the pleuræ are found to be safer than through the peritoneum, we may set out with the hope that a sufficient boldness will break down our present conservatism and lead us to triumphs more signal than those achieved in abdominal surgery in the last decade.

This subject is to be considered in three aspects, viz.: From the *a priori* standpoint; *secondly*, from an experimental standpoint, the view obtained from laboratory experiment; and, *thirdly*, from a clinical standpoint so far as any cases are at hand for collation and comparison.

A priori then, in the first place, what is the effect of a puncture of a lung? We may thrust into its substance an aspirator or other small pointed instrument with great impunity, as we can in most other parts of the body. In case of aspirating the lungs for purposes of diagnosis, I have seen blood oozing from the lips, showing that both an artery and a bronchial tube of appreciable size had been wounded, and yet not the slightest reaction or local symptom followed. Gun-shot wounds of the lungs are fatal or otherwise not in proportion to the amount of tissue injured, but rather according to size of bleeding vessels, the injury to the adjacent organs and other accidental facts in the case. Shock and septicæmia are not such important factors as in wounds of abdominal organs and parieties. Considering the extreme liability of gun shot wounds to injure some one or other of the numerous great vessels or vital organs of the thorax, it is surprising how many cases of wounded lungs recover.

A little boy in Chicago was shot through the right lung and spinal column not long ago, and although permanent paralysis of the lower extremity resulted, the local symptoms indicated nothing more serious than a temporary circumscribed pneumonia, which had disappeared before I had him under treatment for the paralysis. I saw the patient of another practitioner, brought here from Colorado, who had received the bullet from a carbine at short range near the right nipple. At first recovery was prompt, although the lung was penetrated. After reaching Chicago an abscess formed at the lower border of the right scapula. I was present at the time this was opened, and saw taken out of it a large conical bullet and a round piece of his woolen shirt, both of which had passed entirely through the right lung. The patient then rapidly recovered.

It might seem, therefore, from this and thousands of other cases which have been gathered in military statistics that wounds of the lower and outer parts of the lungs, being further removed from danger of opening large branches of the pulmonary veins, are not *per se* a great source of danger to life. The reason of this I take to be the fact that the vital nervous connections of the lung tissue itself is not so intimate as is that of the intestinal canal and peritoneum. The thoracic organs, therefore, are more tolerant of interference than the abdominal. It may seem paradoxical to say that the pulmonary function is less closely bound up with the nervous sympathies than that of alimentation, seeing that the respiratory action is such a vital one. What I maintain is, however, that this function is less dependent upon the integrity of the visceral tissue itself than in most other organs. The terminal motor filaments which control respiration are not in the lung tissue at all, but in the muscles, either the diaphragm or those outside the chest altogether. The lungs themselves are supplied with few sensitive nerves, so that they seem rather passive, collapsible receptacles controlled by influences originating outside their own structure, responding to the needs of other organs rather than their own. A severe application of cold to the skin will cause more excitation of the lung, than a wound of its own structure. An extensive superficial burn will cause more embarrassment to respiration than the filling of one pleural cavity with air or pus. How different is this apparent tissue insensibility from the highly sensitive alimentary canal, where the slightest irritation causes severe reaction, and if long continued, lights up a fiery general inflammation or else causes shock and collapse!

These are some of the theoretical ideas which have occurred to me, and possibly to others, to explain why injuries to the lungs often produce so slight general effect, and which lead us to hope for immunity from risk in performing operations upon them. Of course we are not to forget, what, I need scarcely call attention to, that the comparative smallness of the area of a single pleura is an important factor in our calculations of the risk of opening it, and also the other obvious fact, which it seems superfluous to mention except for completeness, viz., that only one lung would be treated surgically at a time, so that respiration need not be impaired to a dangerous extent. That the pleuræ suppurate easily on being exposed to the air every one knows. In operating under antiseptic precautions, however, this is readily to be avoided, as will be seen from the cases related. Even when suppuration does occur it is not markedly dangerous. Frequently patients with empyema are seen walking about and only semi-invalids. But this is theorizing, and now,

Secondly, for the experimental tests we must look chiefly abroad. In 1873, W. Koch, of Russia, began experiments to test the susceptibility of the lungs to various surgical procedures. He found that when the lung of a dog was pierced at a number of points at one sitting scarcely any pain was felt. There was no reaction, no impairment of respiration or digestion. On examination some weeks later scarcely any scar could be found. This reminds us of the fact stated by D. Hayes Agnew, that in post mortem examinations the path of a bullet through the lungs is sometimes marked by no visible cicatrix. Injection of tincture of iodine into the lung tissue is also a proceeding free from danger, but this produces a limited consolidation and conversion of some portions of its substance into connective tisssue, no reaction follows, no pain is felt except when the chest wall is being punctured, there is not even a cough unless the fluid gets into a bronchial tube. In Koch's opinion, therefore, two things are demonstrated:

1. The lung is insensible (or indolent) to wounds, and there is little or no reaction. This, he thinks, explains why gangrenous parts of a lung sometimes separate and the patient recovers without any dangerous symptoms.

2. Portions of a lung may be destroyed by the injections mentioned, or by galvano cautery, without killing the animal.

Of course, from these premises, the conclusion to be derived is, that in the human subject we may use such measures to destroy infecting foci of tubercular or other disease.

Gluck has gone farther than W. Koch, and attempted the actual opening of a pleura and extirpation of portions of a lung. One entire lung of a rabbit, in his first experiment, was ligated at its root and removed. Out of a considerable number of cases only two deaths resulted, and these were accidental, since the phrenic nerve was inadvertently destroyed. The rest recovered, and upon being killed and dissected later, little or no mischief was found to have occurred in the remaining lung, which was now doing double work. This, of course, was an important part of the experiment. One animal, after a year had passed, was still healthy.

Another series of experiments of similar character was made upon twenty rabbits and dogs, as in the last case, with antiseptic measures, and close compressions afterwards to assist in collapsing the chest wall. Of these a few only died, of pleurisy and pericarditis, the greater number recovered, and without dyspnœa. In these cases it was shown that secondary hæmorrhage does not follow the removal of a part or the whole of a lung, as none of the deaths were from this cause. There seems to be some liability to pleurisy upon the opposite side, for what reason it is not easy to say.

Prof. Schmid, however, has made still more practical experiments by resecting not the whole but a part of a lung, the only extirpation at all likely to be performed upon the human subject, and not so simple an operation. Here the method of operating was as follows: The dog was washed, shaved over the chest wall, and anæsthetized by morphine and ether. A part of the fourth or fifth rib, he does not seem to care which, was resected and the pleura divided, so that a piece of the lung could be drawn out through the wide incision with fingers or forceps, it being now, of course collapsed. Then a sort of ligature *en masse*, or compressure, was employed by transfixing the lung with a needle and applying pressure, by means of a catgut ligature, below the place intended to be resected, in order to prevent bleeding from the part operated upon. Having thus rendered the part bloodless, a wedge shaped piece of the lung was cut out, the large vessels and bronchi united, one by one the edges of the lung wound sutured with catgut, the temporary ligature removed and the lung returned to its cavity, after which the external wound was also sealed up.

Of eight dogs treated in this manner three recovered and five died. There was no hæmorrhage in any case. Empyema followed in four cases. It is assumed by Schmid that these could have been saved by more thorough antiseptics. This is not so evident to me, however, as suppurating pleural cavities occur where there has been no external wound. After such an operation air, highly septic, may enter from the divided cells or bronchi, as in cases of phthisis, where perforation occurs through the visceral pleura, setting up supperative pleuritis.

Schmid has practised the same operations upon the cadaver, without any very instructive results. He proposes that this operation be performed upon persons suffering with abscesses, and also tumors in the lungs, also upon a single isolated cavity of one lung. He also thinks that an infiltrated apex resulting from chronic bronchial catarrh in persons predisposed to phthisis, might sometimes be removed in time to check the disease.

At Dantzig, Block has made similar experiments on animals. He succeeded only in killing all his first animals, but later elaborated a more successful method of operating. The lung is laid bare by means of a horizontal incision, and drawn out, then ligated, cut off, and returned. Block believes that in cases of wounds to the lungs where there is hæmorrhage from large vessels, this method might be valuable, and like Schmid, thinks it could be employed in cases of tumors, gangrene, abscess, and to remove and infected apex.[1]

Thirdly, from a clinical standpoint we are to examine the practical results of lung operation so far as they have been attempted on human beings. The possibility of a man living with one lung, and the compensatory enlargement of the other, is shown by a case in *Virchow's Archivs*. A man whose lungs were supposed to be normal, died of apoplexy, and on *post-mortem* examination was found to have merely a rudimentary left lung of fœtal development and size. The left bronchus ended abruptly in a *cul de-*

---

[1] I am indebted for the above to Dr. D. Ary's translations from the Russian journals.

sac, one inch from the bifurcation, and no air had ever entered the embryonic lung at all. But the left side of the chest was not so much collapsed or filled out by the compensatory enlargement of the right lung and mediastinum. The pericardium was indeed grown fast to the costal pleura as high as the third rib.

This may show, in a measure, what to expect to follow should we ever succeed in extirpating successfully an entire lung in man, as has been done in dogs. And it shows that the loss of the organ is not a dangerous element in the operation. Mosler's first case of operation consisted in draining a large cavity by open incision. It was not sucessful in saving the patient or in much prolonging his life. Another case, but meagrely reported, is that of a man 44 years of age who had a large pulmonary abscess in the lower lobe of the right side, which was opened and freely drained, whether with antiseptic precautions we are not informed. This patient was at first relieved, but subsequently died of suppurative pleurisy. A third recorded case is one of multiple septic abscesses in lower lobe of right lung. Upon opening and draining this abscess great improvement occurred in the general condition, and the hectic diarrhœa was checked, as was also the cough and foul expectoration. These returned, however, as the drainage was improperly cared for, and ultimately the patient died with pleuro pneumonia of the other lung. An abortive effort has been made by Williams to puncture a supposed broncho-ectatic abscess. He afterwards made a second puncture, deriving a small amount of pus, which in his opinion was formed in consequence of the first incision.

Still another case on record is one of a so called gangrenous cavity of the right lung—middle lobe—which was punctured from the posterior side at the angle of the scapula. The patient was almost in collapse at the time. Immediate improvement occurred, and the purulent expectoration ceased. After one week, this reappeared, and the patient was nearly as bad as before, dying upon the twelfth day.

If we examine the cause of death in these unsuccessful cases, we see that in one only was the fatal result caused by the complication usually most feared —pleurisy, but insufficient drainage and lack of boldness were apparently what rendered the operations futile. No drainage of so deep a cavity can be considered perfect without the insertion of a rubber tube of fair calibre, and even with this, unless antiseptic injections large in volume are employed, we are using only half the means in our power to check the progress of the disease. Some have feared, apparently, that injections, as they necessarily must enter the bronchial tubes, might so flood them as to produce asphyxia or too much irritation; but of this it may be said that the injection can reach only where the pus has already reached, and that a little excess or overflow of it will only be expectorated and do no harm. Of course, it should be made mild and unirritating, and its use begun cautiously. On its practical efficacy I will speak presently.

But all these cases of lung surgery have not been so unsuccessful as the earlier ones recorded. One patient, whose right lung contained a large abscess, daily discharging large quantities of fetid pus, was promptly relieved and improved by an incision in the sixth intercostal space, and although he died from other causes a month or two later, it should be regarded as a successful case. I am only able to get a meagre history of this case from D'Arcy, who also describes the following.

A man, 44 years of age, who had suffered severely from dyspnœa and purulent expectoration, was found to have in the anterior surface of the right lung a cavity of considerable size, which was diagnosed as an echinococcus cyst. This was treated by opening the thoracic wall and freely excising the entire sac (under antiseptic measures, of course), and with complete recovery of the patient.

Drs. Hollister and Fenger have reported cases of abscess of the left lung treated by drainage and resulting in recovery.

One of the first instances of carbolized injections being used in the lung itself, was that of an old consumptive, who, by Dr. H. A. Johnson, was discovered an immense collection of pus in the left pleural cavity.[1] After draining away just four quarts from the pleura, it was found that a tuberculous cavity had emptied itself into the pleural sac, so that after a certain amount of warm carbolized water had been thrown in it would rise in the throat and could be tasted. This occurred regularly at each dressing, and caused no inconvenience. The case is of no special interest except as showing the harmlessness of throwing the solutions into the lungs and bronchi themselves.

The case of Henry Cordes, 28 years of age, who is now still under my observation, is an interesting one as being a case of real abscess of the lung relieved and practically cured by surgical operation and after-treatment. In July, 1882, this patient was affected with fever and night sweats, followed not long afterward by muco purulent expectoration in constantly increasing quantities. Dr. N. S. Davis, into whose care he finally came, was convinced that he had located a cavern near the posterior wall of the chest on the left side, and considered it not of tuberculous origin, in which the sequel shows that he was correct. Dr. Davis placed him under the care of Dr. E. Andrews. As the patient was rapidly sinking into hectic, and was expectorating a pint or more of sputa a day, it was thought necessary to run the risks of laying open the abscess from the back, which was the seat of most pain, and where we hoped that adhesions had already formed to the chest wall.

Upon exploring this point with the aspirator, however, nothing but blood was obtained. Between the fourth and fifth ribs another puncture was made more anteriorly, with the same result. In the anterior chest wall, however, pus was found, and an incision freely made down to it without exsecting the rib. From this opening a large amount of fetid pus escaped, and eight inches of a large flanged rubber drainage tube was inserted. A few ounces of very dilute warm carbolized water were injected, and the patient put to bed, where in the course of the night another pint or more of pus was discharged from the tube The patient now recuperated astonishingly from the disease which had brought him so low, the sputa at once ceased to be expectorated, and the discharge from the tube became almost odorless He sat up on the second day and ate ravenously His night sweats ceased, and he was no longer short of breath About a pint of carbolized water was thrown into his abscess at each dressing, and part of this always made its way into the throat, not causing him inconvenience, but being tasted and spit out, sometimes mixed with pus and sometimes nearly clear, and easily recognized by the odor in his breath He had no dread of this injection, but said it seemed to "clear his throat," In somewhat less than a month the patient was able to leave the hospital, and visit my office daily, the abscess having so far collapsed that little remained but a small sinus communicating with a bronchial tube For months the condition remained the same There was no cough nor pain in the chest An injection forced into the tube came up into the throat without causing more than a momentary cough

---

[1] This man had been declared by a Homœopath in his diagnosis, to have something wrong with his heart and there was something wrong for it was crowded two or three inches away from the point over which he had been placing his stethoscope.

Before this sinus entirely closed, which was almost a year after the operation, the patient had regained his former strength and more than his former weight He is now strong and ruddy, without any symptoms of pulmonary disease, and with only a deep scar and a slight area of dulness to indicate the location of the abscess

The results from so meagre a list of cases are wanting in conclusiveness, but by no means in encouragement, and we may be justified in taking hopeful ground as to the future of pulmonic surgery

6 East Sixteenth St, Chicago, Aug 20, 1885

EPIDEMIC CHOLERA, ITS SYMPTOMS, PATHOLOGY AND TREATMENT

BY FREDERICK HORNER, M D,

OF MARSHALL FAUQUIER CO VA

Sacred and profane history present graphic details of pestilences or epidemic diseases In King David's reign, a pestilence destroyed 70 000 men—a calamity which the Bible asserts to have been a judgment of the Almighty to punish a nation for the violation of Divine and physical laws Thucydides has given an eloquent description of the plague which devastated Attica and the City of Athens during the Peloppone sian War A pestilence which prevailed between the years 1345 and 1350 is said to have been so deadly that two thirds of the human race perished In the city of London 50,000 dead bodies were buried in one graveyard It was called the "Black Death"

The mortality of epidemic cholera has never attained to the high figures of such precedents, doubtless for the reason of its modern origin, and because Christian civilization has contributed to mitigate the ills of human life, and medical art is better able to prevent and to cure disease Cholera, from χυλη and ρέω, two Greek words signifying literally a flow of bile, is a misnomer, since the disease does not consist in a morbid and excessive discharge of bile Dr Johnson, who treated the cholera of tropical climates, declares that "in all cases at first there is a diminution, and in many cases a total suppression of the biliary secretion, and the watery discharges continue until the disease takes a favorable turn," adding that in all fatal cases there is an absence of bile in the stools

This disease had its origin in India, along the Ganges, in 1817 In 1820 it extended to China, in 1823 to Astracan, on the Volga, in 1829 to Russia, in 1831 to Mecca, to Cairo and Alexandria, and subsequently, in 1832 to London, Paris, and to the United States The medical authorities at Calcutta attributed, as causes of the disease, extreme heat and drought, followed by heavy rains, and the use of unwholesome food, such as melons, cucumbers and raw vegetables The serfs of Russia, who lived in low, damp and filthy houses, and who habitually indulge in intoxicants, were the greatest sufferers, the same remark was true as to the lower classes in Europe and America The troops of large armies, as well as the pil grims who visited Mecca and to worship Juggernaut, overcome by long marches and journeys, readily contracted the disease, many dying from fear

Both German and English physicians are of the opinion that the epidemic cholera of that period was of spontaneous origin and not imported It was then denied to be transmissible and to be contagious, since neither quarantine regulations or cordons availed to prevent its introduction to neighboring localities The removal of the sick to suitable hos pitals was urged and adopted as a precautionary measure to ensure a better chance of life to the patients, as well as physicians and nurses As an endemic the disease the disease is a common malady, since cases of sporadic cholera constantly occur in warm climates, due to errors in diet and a stomach overloaded with acrid and undigested food Indeed, some authors are of the opinion that its epidemic character does not invest it with any speeific characteristics save in degree, not in kind During the latter part of the summer of 1854, two cases presenting all the symptoms of malignant cholera occurred in the writer's practice, and he is able to recall, also, another which occurred at the Norfolk Navy Yard in 1857, in the person of Lieut Rob't B Pegram

Mr Lizars, of Edinburgh, says of the disease which prevailed in that city in 1831 "It can hardly be considered to be contagious, since dissections several hours after death were performed without propagating cholera, which appeared simultaneously all over the suburbs of the city, without any communication of the subjects of its attacks" That it is infectious is more probable The hypothesis first advanced by Sir Henry Holland of insect life as a cause of the disease, is now fully confirmed by the brilliant discoveries of Dr Koch, who asserts that the infection is not conveyed by the air, but by the absorption of the microbes, comma-bacilli, in eating, thus introducing them into the digestive canal This is done both by means of drinks and of solid food Hence he advises, where cholera prevails, the closure of the wells, and that people drink water which has been boiled, or comes from points distant from the infected centres, or waters slightly mineral, and that food should be cooked at a high temperature. He adds, "The microbe dies when exposed to a high, and especially a dry temperature. It is solely transmissible by direct dejections or articles soiled by them; the first precaution, therefore, is to expose the linen of patients to dry heat or carbolic acid, somewhat strong, for the microbe cannot live in strong solutions of carbolic acid or in great dryness."

The premonitory symptoms of cholera are præcordial distress, weakness, looseness of the bowels attended with griping, followed by nausea, vomiting, diarrhœa, and headache. The attack usually begins at night or after exposure to a hot sun, fatigue, and free indulgence in meats and drinks. A lull occurs after the bowels appear to have been emptied of their fæcal and solid contents; the skin is cold and corrugated, and of a livid hue; the eyes are sunken; the pulse from the first is small and quick; the blood, if drawn, is dark colored and flows slowly; the fluid matters ejected from the stomach and bowels usually contain no bile and have no fæcal odor, and consist of a turbid whitish liquid, resembling water in which rice has been boiled. Favorable symptoms, during the first stage, are marked by cessation of vomiting and purging, and a reappearance of bile in the dejecta. Death may occur within the first twenty-four hours.

The occurrence of the second, or algid stage of the disease, is marked by an aggravation of all of the above-mentioned symptoms. The patient has a sharp and anxious countenance, an expression pathognomonic to the eye of an expert; the pulse becomes small and feeble; the skin is blue and cold to the touch, and the fingers are shrivelled and sodden like those of a washerwoman. The voice is unnatural, and to add to the intense suffering, there is dysuria, and cramps of the muscles of the thighs, legs, and abdomen. Dr. Cragie says: "The cramps were observed chiefly in the gastrocnemius and soleus of the legs, in the biceps flexor of the thigh, in the recti of the abdomen and the adductors of the thigh; the extensor muscles were not affected." Amid all this mortal conflict in the body, the mind and senses remain undisturbed almost to the latest hour of life, though the victim seems totally unconscious of the rapid dissolution which threatens him. "Walking cases" have been noticed, as occur during an epidemic of yellow fever. The patient is able to walk about, fails to apply for medical aid and dies suddenly.

It is important to remember that the first indications of an attack of cholera are twitchings of the fingers and toes, along with immediate sinking of the circulation. The patient sometimes lingers in a pulseless state for a long time before death actually occurs. Hence the danger of too early burial during the prevalence of epidemic cholera, but which may be avoided if there has been observed an increase of temperature of the body, confined to the head and trunk, taking place just before death. As occurs in smallpox, typhoid and puerperal fever, there is a peculiar fetid odor or exhalation from the skin and breath of a cholera patient. When death does occur, it is sometimes preceded by violent spasms of the abdomen and extremities, deadly pallor, shrunken features and icy coldness of the entire body, thus constituting an example of spasmodic or Asiatic cholera.

Pathology.—In this connection, it may be premised that the late Professor W. E. Horner found that the lesions exhibited by the post mortem examination of the viscera of children who had died from cholera infantum, especially the mucous membrane of the alimentary canal, presented often "an abnormal paleness, and the liver is more or less congested, and of a light yellow or mottled color. The follicles are enlarged, resembling in appearance a sprinkling of white sand upon the surface of the mucous membrane. In a patient affected with epidemic cholera, the blood found in the lungs is always black, the liver is commonly gorged with blood, the bladder empty and much contracted, and the intestinal track presents a blanched appearance, thickened, denuded, and sometimes collapsed. A fluid in large quantities is effused in the lateral ventricles and between the convolutions of the brain, and in the membranes of the vertebral columns and spinal cord." Dr. Kier, of Moscow, in his dissections, discovered signs of subacute inflammation both in the stomach and intestines. As many exponents of modern medical science claim that the cholera bacilli are the source as well as the cause of the disease, the true pathology of cholera yet remains an open question.

Treatment.—With the loss of a few hours and the application of appropriate remedies the chances of recovery are lessened. Annesley, who treated hundreds of cases of epidemic cholera in India, says: "If taken at its commencement it is as manageable as any other acute disease, while if unchecked even the loss of an hour may occasion the loss of life." Absolute rest in bed and absolute diet even to starvation should be enforced; the first rule ensuring freedom from business worry and company, and the second the best chance to administer suitable remedies. For the relief of the stomach an emetic either of ipecac or a solution of common salt, or even tepid water, and subsequently the following prescription should be given:

℞
Hydrarg. chlorid. mite ʒ
Morphiæ sulph., gr. iv.
Bismuth. nitrat., ʒss.
M. Divide into 12 powders; one every two hours.

When the vomiting and purging are relieved, sulphuric acid gtts. x, in a little sweetened water, every half hour, will contribute to restore the normal secretions of the intestines. This acid is also a valuable germicide. Sinapisms should be applied over the epigastrium and on the inside of the thighs and arms. For the relief of the violent cramps and congestion of the lungs and head, when the pulse is full and the temperature not reduced, a bath of hot water should be given, followed by venesection to the extent of twenty or thirty ounces, and the application of leeches when the pain is felt in the epigastrium. This treatment is often sufficient to cut short the disease. As regards the use of the lancet, a full bleeding from the arm in cases of cramp, colic, and in cases of overwhelming shock to the nervous centres and cir culatory system, often contributes to the saving of life During the prevalence of epidemic cholera in 1832, Mr Bell ("Treatise on Cholera") commended the value of venesection except in the intemperate Drs Pennock and Gerhard ("Observations on the Cholera") state when there is febrile excitement, and local pain on pressure, venesection and leeches may be resorted to, with a warm bath This is followed by profuse perspiration They add that the medicine most relied upon was opium, mercurials were not employed in the first stage When the stomach would not retain the anodyne sub nitrate of bismuth, gr ii–iv, every two hours, would often relieve nausea and vomiting "This remedy must be discontinued as soon as the vomiting and spasms cease" The beverages allowed were burnt toast water, iced lemonade, diluted nitric acid fifty drops added to a pint of sweetened water, tea, coffee, and fresh milk Dr Sturm, a Polish physician, recommended the use of warm, nearly hot, water in the quantity of a glass full every half hour

Treatment of the Second, or Algid, Stage—The physician is sometimes called for the first time to prescribe for the patient during this stage of cholera As stated already, in this, as in the first stage, it is all important for the patient to be kept in bed and on a restricted diet, and for the physician, for the sake of his patient and his own reputation, to decide upon a course of treatment most approved and practical The life of the patient depends on arousing the sensibility and exciting the action of the cutaneous nerves, and to accomplish this he should be immersed in a hot bath, 100° F, this was found to be of undoubted value in India and in Europe during the epidemic of 1834 The writer has had patients restored from a state of complete asphyxia by being kept in a bath of high temperature for an hour and more A mild emetic may be necessary, either ipecachuanna, sulphate of zinc, or a solution of common salt and draughts of warm water, to clear the stomach, frequently loaded with undigested food After this treatment, calomel and opium should be given in minute doses to restore the natural functions of the intestines and liver

Recurring again to Drs Pennock and Gerhard's "Observations on the Cholera," they state that "during the algid stage of the disease depletion becomes harmful, and especially so if the pulse be much depressed, frictions with warm liniments applied from the extremities towards the central organs, sinapisms to the extremities, and a liniment of ammonia and turpentine applied by flannels along the spine, and opiate injections, alone availed to afford relief If the latter remedy is rejected by the bowels it must be abandoned, because of the danger of adding to the internal congestions and of increasing the existing feebleness"

Alcoholic stimulants, powerful tonics and full diet in this, as in all stages of cholera, are dangerous expedients When the dysuria is relieved, and coincident with it there is free and full discharge from the bowels, the occurrence marks always a favorable turn in the disease

In conclusion, a word may be added with reference to prophylaxcis during an epidemic of cholera As fear is a powerful depressing passion, it becomes the physician to encourage, on the part of his patients and the community, a cheerful and hopeful state of mind If the religious sentiment can be invoked, this disposition will be greatly strengthened Dr G B Thornton, President of the Board of Health of Memphis, commends the use of a cup of strong coffee or some article of food to be taken before visiting the sick Any imprudence of diet may prove disastrous, as occurred within the writer's recollection to the late Dr White, the resident physician of the Pennsylvania Hospital, in 1854 Dr White, on his way to the Philadelphia Almshouse, unfortunately stopped at a restaurant and ate heartily of ice cream, subsequently visiting and prescribing for a number of cases of cholera He contracted the disease and died in a few days

The waste, as well as articles of clothing of a cholera patient, should be carefully disinfected The disinfectants in common use are so well known that it is needless to give a detailed list

---

MEDICAL PROGRESS

MEDICINE

IODOFORM IN GONORRHŒA —DR A OGER, in discussing the use of iodoform in gonorrhœa, refers to its use in solution of glycerine by M Campana in acute and chronic conditions of the disease The best results are attained, however, when it is applied to the diseased parts in a very fine powder In this form Timmermans has obtained excellent results Iodoform being insoluble in water, he suspends, in two and one half ounces of water, sixty grains of the drug rendered impalpable by previous solution in sulphuric ether The mixture being well shaken, a small glass syringe is filled and injection practised As it is important that the iodoform come in direct contact with the inflamed mucous membrane, the urethra should be thoroughly cleansed by urination immediately before the injection is made The patient should lie on his back and the injection be made in a direction nearly vertical, gravity thus causing the powder to seek the lower part of the syringe, and thus favoring its introduction into the urethra when pressure is made upon the piston When the syringe has been emptied, it should be gently withdrawn, and while the meatus is compressed by one hand, with the other careful pressure is made so that every part of the passage is reached by the fluid, and the iodoform thus deposited upon the mucous membrane After four or five minutes the fluid is permitted to escape gradually, in order to avoid the ejection of the iodoform The operation should be repeated at least three times a day

Whatever is the stage of the disease a prompt result is certain, as is shown by diminution of pain—the iodoform evidently acting as an anæsthetic to the inflamed parts The character of the pus is also changed, and its abundance diminished Cure is promptly obtained, in one resulting in five days —*Journal de Medecine de Paris*, July 19, 1885

SURGERY

STRANGULATED UMBILICAL HERNIA—REMOVAL OF SIX INCHES OF SMALL INTESTINE —RECOVERY —MR W H FOLKER reports this case in the *British Medical Journal*, of August 15, 1885 The patient was a married woman, æt 47 years About 12 years ago she sustained an umbilical hernia from a fall

On February 25, 1884, had a return of the symptoms of strangulation, and was admitted to the North Staffordshire Infirmary On admission, the patient, a corpulent woman appeared to be in a most exhausted condition, suffering from almost constant vomiting of a fæcal character She had a large umbilical hernia, evidently not only strangulated, but gangrenous, for even the skin covering it was quite black, and smelt most offensively

Immediate operation was resorted to, the patient being cautiously etherised An incision was made, of the length of the tumor, opening the sac, when a large piece of bowel was found to be quite black, the contents having escaped into the sac through an opening about an inch and a half in length, the omentum and everything within the incision was gangrenous The skin and everything that was sloughing, except the bowel, was first removed, and the cavity well washed out with carbolic lotion, and then the bowel (which was small intestine) was drawn well forward till a sound portion was reached at each side, the inner halves of each portion were cut through and carefully stitched together, with their peritoneal surfaces in contact, the outer half of each piece of bowel affording a secure hold whilst this was being done, these were then removed, and the cut edges secured to the skin, forming an artificial anus The edges of the skin below were brought together by two harelip pins, and the parts dressed with oiled lint (carbolic oil 1 in 20), covered with absorbent wool, a wide flannel roller being applied over all She was ordered to have the urine drawn regularly with the catheter, and to take ice and soda water

February 29th (the day following the operation) The temperature was normal There was fæcal discharge from the bowel opening The patient was looking better, although vomiting, with a fæcal odor, still continued, and she had some little pain A subcutaneous injection of morphia was given, which relieved the pain and checked the sickness The skin over the abdomen was covered with oxide of zinc ointment spread on lint

March 1st The fæcal discharge continued, and the temperature remained normal, although the sickness still persisted, but without any odor Hypodermic injections and dressing were repeated

March 2nd The upper pin was removed, as it was threatening to cut through, the parts being very tense The sickness had nearly ceased Temperature 100 4° The treatment was continued

March 6th She was doing well, the temperature was normal, there was no sickness As the external parts were giving way, the last pin was removed, which caused the skin wound to gape very much, though the edges of the intestines remained perfectly adherent to each other and to the abdominal wall Strapping was used to support and to bring the parts as much together as possible The use of the catheter was discontinued

March 18th The edges of the wound, looking somewhat undermined, were packed with iodoform-gauze This was ordered to be repeated as often as necessary, for, from the constant welling up of fæcal matter, the patient required dressing several times a day This afternoon, an attack of sickness came on, which lasted from 3 o'clock till 6, but was stopped by a draught of morphia and bismuth

April 9th The patient to day said that she thought she was pregnant, as she discovered milk in her breasts She was, therefore, carefully examined, and such was found to be the case

April 22nd I passed a whalebone sound, and left it in for about half an hour Pains came on, but passed off again about midnight The next day, some ergot of rye was given, and early the following morning the fœtus came away

May 10th The patient having now recovered from all effects of the abortion, it was determined to try to close the artificial opening in the bowel, accordingly, at 2 P M, a blade of Dupuytren's enterotome was introduced into each opening of the bowel, and brought very lightly together At 2 45 sickness came on but, under the influence of a morphia draught, ceased towards evening

May 13th There was no pain or sickness I tightened the enterotome a little more, having screwed it up a little on the 10th Flatus passed *per anum* to day for the first time

May 15th I screwed up the enterotome as tightly as it would go This was followed in the evening by very sharp pain, which was entirely relieved by morphia

May 21st The enterotome came away to day (that is on the eleventh day), Flatus passed in abundance, but no fæcal matter yet, *per anum*

May 25th The temperature rose to 101 4°, with some pricking pain and general uneasiness An enema of soap and water was administered, which brought away some hardened fæces and flatus, and relieved all the other symptoms

May 27th In the hope of restoring the continuity of the intestinal passage, and of preventing the fæces from being discharged through the artificial opening, a piece of stout India-rubber tubing, three fourths of an inch in diameter, and about 5 inches in length, was introduced, one end into the ascending, the other into the descending portion of the bowel It was secured at the centre by a strong piece of silk, the ends of which were left hanging from the opening

May 28th The tube was forced out of the wound this morning Dr Hatton reintroduced it, but it was again forced out at 9 P M

May 29th The tube would not remain in, it was, therefore discontinued

May 31st I reapplied the enterotome to day, this was followed as on the former occasion, by pain and sickness, which was relieved by morphia

June 9th The enterotome came away (the tenth day)

June 12th The edges of the opening were brought together by a broad piece of plaster, but without effect

June 18th Hitherto the patient had had no solid food, and complained of feeling hungry, the diet was, therefore, changed to ordinary solid food

June 23rd An enema of soap and olive-oil brought away a fairly natural motion This was repeated on the 26th, when the bowels were freely relieved They were moved again by the natural effort, an hour afterwards, and again a second time in two hours

July 1st I refreshed the edges of the external opening, and brought the parts closely and accurately together, with five deep, and three superficial sutures Solid food was ordered to be discontinued for a few days

July 2nd Fæcal matter was forced through the wound, and in a day all broke down, the stitches were removed, and the discharge was as free as before

July 16th She got up for the first time, the discharge was the same

July 29th On making a digital examination to-day, both ascending and descending portions of bowel were found to be quite free, and of uniform calibre, the slight prominence, the remains of the spur, could only just be felt by the extremity of the forefinger when introduced to its full length An enema produced an ordinary motion Another plastic operation was therefore performed, but with no better result, for in two days the discharge began to force its way through between the stitches

Enemata were now administered every other day, and a fortnight afterwards the edge of the wound was cauterised, in the hope of causing it to contract This was continued for some time, the application being varied from time to time between nitrate of silver fuming nitric acid, and the thermo cautery

September 22nd She had a natural motion for the first time to day, and again on the 29th, but as this did not occur again, enemata were regularly administered, and always acted copiously, but still fæcal matter continued to well up through the wound, although it was reduced to the size of a ten cent piece

At the end of October, wishing to go home, she was discharged at her own request, all the various attempts to close the wound having failed She has presented herself from time to time at the infirmary, but remains exactly in the same state as when she left The remains of the spur could be felt with a probe at about an inch and three quarters from the surface

This is not a case commonly met with, and, as the discussion may perhaps bring forth different opinions as to the treatment adopted, I would first say that, six inches of intestine having sloughed and burst, its entire removal was imperatively required Then came the question as to how the remainder was to be treated The sloughing was so extensive, that I dared not rest content with opening the bowel and leaving it to form an artificial anus by adhesion, as has occasionally been done in inguinal hernia when the bowel was not fit to be returned, and for the same reason I was afraid to attempt to unite the two ends of the bowel together and return it, and therefore decided upon the method of treatment which I have described

When the patient was found to be pregnant, the question of allowing her to proceed to the full time gave rise to some little doubt If pregnancy had been allowed to go on, it would not have been prudent to have attempted Dupuytren's operation, as it might have caused miscarriage whilst the clamp was on the bowel, and possibly have been fatal, and danger was also to be apprehended from the extreme distension of pregnancy, and the straining pains attending it, and, lastly, there was the great delay All this was fully explained to the patient and her husband, and consent was at once given

The application of the enterotome, on both occasions, only caused a little nausea and sickness, which was easily controlled by a dose of morphia, until it was finally screwed up tightly, when some sharp pain was experienced, but was easily relieved The instrument came away on the tenth and eleventh days, which, I believe, is about the average time

The chief point, however, on which I am anxious to hear the opinion of others is, why does the opening not close? and wherein have I been in fault in my attempts to produce its closure? There must be a clear passage in the bowel, both ascending and descending, of at least an inch in diameter, as was proved by the introduction of the three-quarter-inch India rubber tube, the lower level of the bowel is nearly two inches from the surface There seems no impediment in the bowel, or why should fæcal matter pass as it does when an enema is given? and why should it force through a small narrow opening in the upper part, when there is a free and much larger channel on a lower level?—[The report of this case is taken at length, and with the risk of being somewhat tedious, on account of its unusual character, and great surgical interest]—*British Medical Journal*, Aug 15, 1885

DIGITAL TENOTOMY IN PIANISTS —MR NOBLE SMITH, in speaking of this operation, says that the operation as practised by Dr Forbes, of Philadelphia, promises to be one of great benefit to accomplished pianists, as well as to learners In making some dissections on the dead body, with a view to determine the usual position of the slips of tendon which limit the action of the extensor of the ring-finger, I found that these vary very much in different cases, so that it becomes necessary to carefully determine their position by the eye and finger, during movement of the extensor-tendon, in each case before operation I have just succeeded in freeing the ring-finger of the right hand of an accomplished lady pianist, without causing her much more pain than is felt from the prick of a needle Before operation she was able to raise the finger only five eights of an inch beyond the others Directly after the operation, she could raise the finger easily to one-and a-half inch, without the least feeling of loss of control over its action The division was, of course, made subcutaneously, so that only a minute wound was left in the skin, one eighth of an inch in length —[Cocaine has been recently used in an experimental operation of this kind, and with perfect success]—*British Medical Journal*, July 4, 1885

THE

Journal of the American Medical Association

PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE, INCLUDING POSTAGE

PER ANNUM IN ADVANCE $5 00

SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, SEPTEMBER 5, 1885

THE PROGRESS OF PHARMACOLOGY AND THERAPEUTICS

Such is the title of the very interesting and suggestive Address in the Section of Pharmacology and Therapeutics, delivered by PROFESSOR THOMAS R FRASER, of Edinburgh, at the late meeting of the British Medical Association The address is the more interesting from the fact that it is the first that has been delivered in this Section of the British Association, as the Section was only founded at the annual meeting in 1884 And the selection of Prof Fraser as the first Chairman of the Section was most suitable in view of the great facilities for pharmacological work in the University of Edinburgh, facilities which are scarcely excelled by those of any institution on the Continent

Professor Fraser commenced by referring to the fact that in the branches which form the subject of his address we have not made so much progress as in other departments That this is true everyone will admit But may it not be due to another fact, that special work in this department carries the investigator somewhat out of the usual line of work which engages the physician? Is it not more true of this than of any other branch of medicine that the worker must have a special training, and a special aptitude for such work? And is it not due also to a third fact, that in order to accomplish anything in this branch the worker must, from the very start, be thoroughly familiar with chemical work? Again, there is another fact of no less importance practical results in pharmacology must depend in great part on our advancement in physiological pathology, and it must be admitted that this has not kept pace with our knowledge of pathological anatomy "To the therapeutist, and, therefore, to the medical practitioner, the progress of physiological pathology is of as great interest as that of pharmacology In the meantime, neither has advanced further than the threshold of its possible development, and, naturally, the benefits which have been conferred by them upon therapeutics are not as yet conspicuously apparent Their development is, for the most part, wanting even in that equality and symmetry which is required for practical application In only a few instances can we find that each has made sufficient progress to benefit therapeutics, as, for example, in some of the applications of the pharmacological action of the nitrites, or of digitalis, or of several diuretics to the treatment of disease"

He utters a word of warning against hasty deductions and generalizations "Patience must also be exercised to enable us to avoid the great danger to therapeutics, a desire to too hastily gain results, which is constantly besetting us It has manifested itself in all ages, in a search after specifics—so called—a search which tends to distract from solid work in pharmacology, where the results are certain to be more valuable and more conducive to the ultimate benefit of therapeutics My remarks have indicated that I regard pharmacology as one of the means by which the great aim of medicine—the healing of disease—is to be gained It is an essential means, and it therefore becomes of importance to arrive at some clear conception of the method by which the investigation of pharmacological problems is best to be effected"

As might be supposed, the two methods which he thinks open to us are The study of the effects produced by remedies administered in disease, and the study of the effects produced when the drug is administered to the healthy animal, or when physiological pathology is applied to pharmacology As regards the first method, Dr Fraser says that "its results are, unfortunately, too apparently unsatisfactory to require any elaborate criticism Even when the problems are of the simplest description, fallacies that are destructive to the scientific value of the results can scarcely be avoided" As an example, sleeplessness and pyrexia are but manifestations of many kinds of departure from physiological conditions, they are only symptoms, which may be due to many different pathological processes, and their precise nature has yet to be defined by physiological pathology It is quite improbable, even on *a priori* principles, that "each of the abnormal processes leading to sleeplessness, or to pyrexia, will be restorable to their normal state by every substance that is capable of producing sleep, or by every substance that is capable of reducing temperature." A better example of the insufficiency of the method of simple observation in disease could scarcely be given. But when the nature of the pathological processes has been defined the pharmacologist should, and in all probability will, be able to produce the substance that will antagonize the pathological process, and restore the perverted function to a more or less completely healthy state.

It is knowledge of this kind that Dr. Fraser understands to be the aim of pharmacology, and to obtain it, those who work in this department must continue the method of research that have founded the science of pharmacology. It is true that even this is a method of observation; but its results are much more certain than when the observations are made on man, especially if he be suffering from disease. "I cannot too emphatically state that it is only by this method that we can ever hope to utilise thoroughly the means so abundantly placed at our disposal for placing therapeutics in a satisfactory position. If it be a worthy object to aim at lessening of suffering, the prolonging of human life, the prevention of premature death, then I say the study of pharmacology by experimental investigation not only requires no apology, but the neglect of this duty imposes a heavy responsibility upon those who place obstacles in the way of pharmacological research." Yet this responsibility has been assumed by every one who is in sympathy with antivivisectionists.

The last point made by Dr. Fraser, and a very important one, is that it is time that the intimate association which has so long existed between pharmacology on the one side, and pharmacy and the physical characters of remedial substances on the other should be severed. This separation has been effected in several of the Scottish universities, in the school at Manchester, and in two or three of the London schools. In this way pharmacology may be taught at a period when it can be properly appreciated by the student. "It deals with perversions of functions produced by active substances and therefore requires some acquaintance with physiology before instruction in it can be intelligently followed." And in order to further the study of this subject, Dr. Fraser suggests that laboratories for investigation should be established in every important medical centre. "Every argument that can be urged in favor of laboratories for physiological or chemical research can be urged in favor of laboratories for investigating the action of remedies; and it is to be hoped, that this want will be speedily removed."

MR. LAWSON TAIT ON THE MODERN TREATMENT OF UTERINE MYOMA.

MR. LAWSON TAIT's paper, entitled "The Modern Treatment of Uterine Myoma," read in the Section of Obstetric Medicine at the recent annual meeting of the British Medical Association in Cardiff, is interesting and suggestive.

The first point of Mr. Tait's paper was: "To show that removal of the uterine appendages for myoma, when properly performed, is not a fatal operation, but one with hardly any mortality at all, even when the tumors are large, and when the patients are brought almost to death's door by hæmorrhage." In support of this proposition, he adduces fifty-eight operations, since January, 1884, without a single death. His entire modern experience gives a series of one hundred and eight cases, with two deaths, and he states his belief that the operation, in experienced hands, has a real mortality of not more than one per cent.

The second point: "That the results of the operation are satisfactory and permanent, so that we may with confidence recommend it for the relief of suffering and the saving of life," he endeavors to prove by a succinct summary of statements, relative to fifty cases, elicited from the practitioner who sent the case, his own personal observation, or the patient herself. Of the fifty cases, failure was observed in only two instances. One of these cases proved subsequently to be cancer of the body of the uterus. Menstruation was not arrested in the other case, and the tumor continued to grow. Two patients have been admitted to insane asylums, although in neither case could the operation be held accountable for the insanity.

Mr. Tait accordingly concludes that the statements, made in his paper on his first thirty cases, read May 24, 1881, before the Royal Medical and Chirurgical Society, and published in the *American Journal of the Medical Sciences*, January, 1882, have been abundantly sustained. Two of the conclusions in this paper have been substantially quoted. The third was: "That the whole subject was one well worthy of more study, and should not be made the subject of premature and hostile conclusions." It is seldom that one reads such a concise array of arguments, arranged in logical order, expressed in vigorous English, as constitutes Mr. Tait's paper. The essay reads like the demonstration of a theorem in Euclid. It is necessary, however, to bear in mind:

I. That the operation is usually difficult, sometimes impossible. Attention has been directed to this subject in an able editorial in the *British Medical Journal*, August 15, 1885.

II It is not always possible to remove all the ovarian tissue on both sides Unless this be done, the operation usually fails of its object

III After removal of the appendages, the patient must wait a long time for the subsidence of the tumor Sometimes the tumor remains unchanged, and exercises its untoward influences in the way of mechanical pressure, and a certain ill-defined pernicious constitutional effect

IV No living operator has approximated the success of Mr Lawson Tait

V A limited number of cases recover completely under judicious medication

VI In a certain proportion of cases, the tumor disappears spontaneously, or remains quiescent

VII Finally, after removal of all ovarian tissue, the tumor may continue to grow

THE BACTERIA OF SYPHILIS IN SMEGMA PREPUTII

During the past year Lustgarten has described a form of bacillus which he regards as pathogenic of syphilis It is about the size and in general appearance similar to the bacillus of tuberculosis He found it in the secretions from ulcers and in sections of hard chancre and mucus patches Lustgarten has also recommended methods of coloration which he believes to be absolutely characteristic

In the *Bulletin de l'Academie de Medecine*, for August 4, is a résumé, by Prof Cornil, of the work of MM ALVAREZ and TAVEL, who undertook, at his suggestion, a series of control observations upon those of Lustgarten, the results of which are of much interest They found a bacillus, in various normal secretions of the organism, which in form and color-reactions appears to be identical with Lustgarten's bacillus of syphilis They discovered the bacillus 33 times in 55 cases of hard chancre and other syphilides examined They found what appeared to be the same micro organisms in other non-syphilitic secretions from lesions of the genital organs, and also in many cases of smegma preputialis and vulveris It was rarely found except about the genital organs or edge of the anus, though it was sought for in the mouth, nose, ears, on the head, feet, and in folds of the skin, but unavailingly They suggest, therefore, that the bacillus of Lustgarten is this which they find in normal smegma, and that the microbes simply penetrate and become imbedded in syphilitic as well as other inflammatory tissues and secretions in the region of the genital organs

The bacillus observed by Alvarez and Tavel presents in form and many of its color reactions a strong resemblance to the bacillus of tuberculosis It can be distinguished from the bacillus of tuberculosis by its more slender proportions and less granular appearance If stained with methyl violet and decolorized with dilute nitric acid and washed with alcohol the bacilli are almost or quite completely decolorized If examined before washing in alcohol they appear slightly stained, showing that they do not well resist the decolorizing effects of alcohol Contrary to the observations of Lustgarten the microbe can be stained by Ehrlich's method with fuchsin, and resists the decolorizing powers of acid

The presence of this bacillus, and its very great similarity to the bacillus of tuberculosis, must be borne in mind by those examining urine, fecal matter and suspected tubercular lesions of the genital organs and anus, for the latter microbe A diagnosis can only be made by employing, with vigorous exactitude, the differential processes of coloration

MM Alvarez and Tavel have not as yet succeeded in cultivating the bacillus of smegma, and therefore have not been able to experiment upon its pathogenic powers

THE COMMITTEE ON ORGANIZATION OF THE NINTH INTERNATIONAL CONGRESS

The *Medical News* for August 29, under the head of The New Committee on the Organization of the Congress and the Old Committee," gives in parallel columns what it calls "the New Committee" and "the Original Committee" In the first column, headed "The New Committee," it gives correctly the names of the seven who constituted the Original Committee of Invitation, together with the one from each State and Territory, and from the Medical Corps of the Army, Navy, and Marine Hospital Service, making a total of forty seven members and fairly representing the Profession of the United States In the second column, however, under the head of "The Original Committee," it gives not only the names of the Original General Committee on the Organization of the Congress, but includes also the names of seventeen other parties, who constituted no part of said "Original Committee," having acquired only an *ex officio* or nominal membership through appointment to certain officials positions in the Congress

By this erroneous and deceptive method, the *Medical News* makes its column headed "The Original Committee" contain forty-two names, when no one knows better than the editor of the *News* that the Original Committee on the Organization of the Congress was composed of just twenty-five members, namely four from New York, three from Pennsylvania, three from the District of Columbia, two from Maryland, two from Massachusetts, two from Illinois, two from Georgia, and one each from Louisiana, Kentucky, Ohio, Missouri, South Carolina, California, and Canada Eight of the twenty-five constituted the primary Committee of Invitation, and the other seventeen were selected by the eight, by virtue of their power to increase the membership of the Committee It was this Committee of twenty-five that met in general session in Washington on the 29th of November, 1884, to adopt a plan of organization for the Congress Only fifteen of the twenty-five were present and took part in the meeting, and the General Committee as thus constituted was never convened again in general session Consequently the seventeen names of parties who had been assigned to prominent offices in the Congress, now added to the list to swell the number of members of the Committee to forty two, had no more to do with the work of the Original Committee on Organization than any other members of the profession

BACK NUMBERS OF THE JOURNAL —We have now received a sufficient number of the copies of the JOURNAL, for which we advertised in the issue of August 22, to supply our present need, and therefore withdraw the offer then made

SOCIETY PROCEEDINGS

AMERICAN DERMATOLOGICAL ASSOCIATION

Ninth Annual Meeting, held at Greenwich Connecticut, Aug 26, 27 *and* 28, 1885

WEDNESDAY, AUGUST 26—MORNING SESSION

The meeting was called to order at 10 o'clock by the PRESIDENT, DR W A HARDAWAY, of St Louis

DR J E GRAHAM, of Toronto, Canada, reported

A CASE OF TUBERCULO ULCERATIVE SYPHILIDE OF HEREDITARY ORIGIN

The patient was a girl 20 years of age On the right arm, from the wrist to the elbow, there was very little healthy skin, there being little but cicatricial tissue The skin of the forearm presents elevations and depressions, and in places it is covered with thin scales The head is not involved, and the affection does not extend deeper than the subcutaneous areolar tissue For three or four inches above the elbow, the arm is atrophied and covered with cicatricial tissue At the upper border of the cicatricial tissue, there is an ulcer three fourths of an inch wide, which encircles the arm Above this is sound tissue No nodules are present The left clavicle presents about its middle a swelling and ulceration about the size of a silver dollar This was the result of a blow There is no copper-colored appearance The heart and lungs are healthy and the urine normal Investigation of the family history showed that the mother was apparently healthy Three of the patient's sisters, all younger than herself, were healthy The father died from pneumonia when the patient was eighteen months old It was subsequently learned that he had also had syphilitic ulceration of the throat

The treatment consisted in the local application of a mild mercurial ointment, and the internal use of bichloride of mercury and iodide of potassium The condition steadily improved, and in the course of six or eight weeks the ulceration had healed The patient at that time passed from under observation

The speaker referred to the difficulties of diagnosis in this case, as there was a complete absence of specific history, the facts in regard to the father not being learned for some time after the case had been under treatment There was no history of any previous evidence of hereditary syphilis, but taking all the facts into consideration, the doctor thought there could be no doubt as to the correctness of the diagnosis Photographs showing the condition were exhibited

DR R W TAYLOR, of New York, thought that it is now generally conceded that syphilis can be communicated to the child without infection of the mother, and he believed that he was the first one in America to call attention to this fact He had seen this a number of times, and in cases where a most careful examination of the mother had been made, and the observations continued over a series of years The doctor had stated that he could obtain no history of early manifestations of hereditary syphilis This was not uncommon, but he believed that there is usually some indication of specific taint, which, however, may be so slight as not to excite notice, or its exact import is not recognized These may pass away, and in the course of six months or a year, the ulcerative lesions appear, but it is not uncommon for the child to go to the age of from six to eighteen years without exhibiting this condition

DR C HEITZMANN, of New York, thought that every one has seen cases similar to the one reported He had seen such cases in which he was unable to determine at first sight the nature of the affection The diagnosis lies between syphilis and scrofula

DR GREENOUGH, of New York, said that he would like to refer to the practical point to which Dr Taylor has called attention, and that was the possibility of the father infecting his progeny, without the mother showing any signs of syphilis Within the past two months he had seen a woman who had lost three children in succession from hereditary syphilis, yet she was strong and apparently perfectly healthy, and had never shown any signs of syphilis This woman had been under observation for six or seven years

DR L A DUHRING, of Philadelphia, thought that there are certain cases in which it was almost impossible to express a positive diagnosis at first The result of treatment in causing a rapid cure in the case described would certainly incline him to the opinion that this was a case of syphilitic disease

DR JAMES NEVINS HYDE, of Chicago, said that he had seen cases that convinced him that whilst it is not the rule, still, occasionally, syphilitic children are born where, so far as observation can be made, no evidence of syphilis in the mother can be detected As far as the general health is concerned, the women are usually pallid and weak, although there may be no symptoms which can be ascribed to syphilis He had never seen inherited syphilis manifesting itself in advanced years The more he saw of syphilis, the more he was satisfied that in its origin, heredity does not amount to very much The accidental cases of syphilis are very common He had seen the initial lesion of syphilis on the head of a penis where it was unquestionably due to inoculation from the finger of the surgeon in catheterization He had no doubt the case described was one of syphilitic trouble, and, as Dr Duhring had said, the result of treatment unquestionably points in that direction No cases yield so readily as old cases of untreated syphilis As to pronouncing it a case of hereditary syphilis, his experience would not permit him to do so

Dr W A Hardaway, of St Louis, thought that it is unwise to base diagnosis on the results of internal treatment Because a case gets well under antisyphilitic treatment is not proof that the affection is specific in its nature Local treatment is often all that is necessary

Dr R W Taylor said that Dr Hyde had made the statement that these women apparently unsyphilitic who have borne syphilitic children, have in his experience been pallid and weak He entirely disagreed with him on that point

Dr F B Greenough, of New York, then read some

CLINICAL NOTES ON PSORIASIS

The paper was founded on the records of 394 cases of psoriasis This number occurred in about 15,000 cases of skin disease examined, and represented about two and one-half per cent , 205 cases occurred in males and 188 in females Several tables of statistics were presented, showing when the cases first came under observation and the age at which the attack was first observed A large proportion of the cases was first attacked with psoriasis between the ages of ten and forty years, but the fact that one-seventh of the cases showed psoriasis before the age of seven years was not in accordance with previous observations In 97 cases the speaker had been able to get reliable evidence in regard to the family history In 31 cases psoriasis had existed in a near relative, but in 66 cases the patients felt sure that the disease had existed in no other member of the family

As regards locality affected, where there is much development, it is almost constantly found about the elbows and knees, and more frequently on the extensor surfaces than on the flexor There is one class of cases where the affection attacks only the skin of the leg below the knee Well marked cases are readily diagnosticated, but in some cases there is considerable difficulty in making the diagnosis It is most frequently confounded with some form of eruption resulting from constitutional syphilis When psoriasis affects the scalp, its appearance is often similar to that of secondary syphilis In psoriasis, however, the patch consists simply in epithelial cells and there is no hyperæmia connected with it In syphilitic eruption, the crust will contain other elements than epithelial cells, and on removal of the crust spots of moisture will be detected A characteristic symptom of psoriasis of the scalp is a band of hyperæmia, about three fourths of an inch wide, extending around the forehead, contiguous to the hair This is a point of value in the diagnosis between eczema capitis and psoriasis In the former affection this band is wanting In eczema, also, evidences of dried serum or pus will be found Psoriasis is not accompanied with enlargement of the post-cervical glands, as is eczema The diagnosis from favus is made by the age of the patient The evidences of the destruction of the hair follicles in Favus and the microscopical examination He had never been able to satisfy himself that psoriasis of the scalp ever caused permanent loss of the hair

On the general integument, syphilides are most apt to resemble psoriasis The regions on which the eruptions appear is important The syphilides are apt to affect the flexor surfaces, while the psoriasis affects more commonly the extensor aspects Psoriasis begins as a minute point of hyperæmia, which may last for several days In macular syphilide a crop of macules appear within twenty four or forty eight hours, when the eruption fades There is in syphilis a decided pigmentary change In squamous syphilis the epithelial scales differ from those of psoriasis In some cases of psoriasis there is severe itching, leading to scratching of the skin, and as a result scabs and crusts make their appearance, but here the cause of the condition is readily recognized The amount of pruritis complained of in psoriasis varies, but it is rarely a prominent symptom, although in exceptional cases it is very severe He has never seen any eruptions on the hands or feet resembling psoriasis, with the exception of eczema, which was not syphilitic

In regard to treatment, some cases do well, while others do not There is no specific What will benefit one case will make another worse In his experience tary preparations, especially the oil of cade, have been most efficacious Great comfort may be afforded by the use of emolients Cod-liver oil is one of the best applications Cod-liver oil and the oil of cade (equal parts) is a common prescription Chrysarobin is a powerful remedy, but has the disadvantage of destroying the clothing On the face and scalp it is apt to produce dermatitis The internal administration of arsenic in some cases is of benefit Even after apparent recovery, there is great danger of relapse

Dr L A Duhring said that the reader of the paper, in referring to the diagnosis, did not allude to the difficulty sometimes experienced in diagnosing seborrhœa capitis from psoriasis He had found considerable trouble in the diagnosis, particularly in young girls In these cases the eruption was confined to the scalp

Dr A R Robinson said that in regard to the diagnosis of favus and psoriasis, there is usually no difficulty He did not agree with the author in regard to one of his points of diagnosis In the early stage you do not find moisture when the crust is removed There is a shiny appearance It is only in advanced stages that ulceration is present He agreed with the speaker that psoriasis always occurs in small spots at first not covered with scales While it is true that psoriasis often disappears without producing pigmentation, yet there may be discoloration found on the lower extremities, particularly where there is a varicose condition of the veins In some cases where there are only a few patches of psoriasis, limited to the lower extremities, it is often difficult to make the diagnosis, unless there is involvement of other parts of the body, or you have the history There are other cases of acute psoriasis which closely resemble acute eczema In reference to the palms of the hands, whilst we do not see cases of psoriasis limited to this condition, yet he was sure that cases have been shown in which the palms of the hands have been affected in connection with other portions of the body

DR J C WHITE, of Boston, agreed with the previous speakers in regard to the difficulty of diagnosing between psoriasis of the scalp and seborrhœa In some cases the diagnosis can not be made for months In all parts of the body pigmentation may follow psoriasis, but never over large areas He called attention to one termination which he had seen in three cases, and that was a degeneration into epithelioma

DR R B MORRISON, of Baltimore, had seen a great many cases of psoriasis, but could recall only one or two cases of psoriasis in the negro In such cases, there is a loss of pigment

DR G H FOX, of New York, thought that too much stress was laid on the general rule that psoriasis occurs most frequently on the extensor surfaces, the knees and the elbows It is a notable fact that in general psoriasis, the vicinity of the knee and elbow escapes Many cases of psoriasis occur in weakly subjects, while on the other hand, many cases of eczema appear in robust persons In every individual case, the better the patient's health, the less likely is he to suffer from a recurrence of the affection He had been very successful in the treatment of psoriasis, and in its management He adopted the teaching of the late Tilbury Fox, who laid stress on the point that in psoriasis, as in other inflammatory affections of the skin, and also in lupus, the first thing to do is to lessen the congestion of the skin He did this by restricting the diet He cuts off the meat and orders a diet of fruits and vegetables in the summer, and in the winter gives a carefully restricted diet Tea, coffee, tobacco, and stimulants of all kinds are to be cut off By so doing more will be accomplished than is obtained by using arsenic and local applications at the start

In regard to local remedies he never uses tar in the treatment of psoriasis With the application of chrysarobin made at the proper time, there is no necessity for the use of tar He had seen many cases in which this drug did no good, but this was because the application was made when the patches of psoriasis were in a congested condition If the acute congestion is lessened, chrysarobin will produce beneficial results

DR C HEITZMANN thought that one of the most important points after making the diagnosis is to decide as to the acuteness or chronicity of the affection If it is acute, local applications are to be avoided If the case is chronic chrysarobin may be used with advantage, at least temporarily It is not a cure He agreed with Dr Fox that restriction of the diet is important for the purpose of lessening the congestion Tar can not be dispensed with Chrysarobin remedies the disease for a time, but in a few months it returns There is nothing like tar to prevent the recurrence No mention had been made of pyro gallic acid, which does good in some cases There are, however, some cases which can not be treated successfully with any remedies The disease will steadily grow worse

DR W A HARDAWAY believed that in psoriasis we have a disease situated in the skin itself It is frequently hereditary The same sort of skin may be transmitted just as a certain color of the hair or of eye may be transmitted, and then any exciting cause may develop the psoriasis Traumatism is frequently the exciting cause He had seen psoriasis follow eczema It is not unlikely that in seborrhœa of the scalp there may be the development of psoriasis Internal causes may produce it He had seen the excessive use of oat meal produce typical psoriasis

In the treatment of psoriasis it is important to regulate the diet and aid digestion in all possible ways As a local application, he considered that chrysarobin, with salicylic acid, was very useful in chronic cases Arsenic is useful on account of its action on the skin This treatment may be followed up by the application of sulphur ointment In psoriasis of the scalp sulphur is quite an efficient remedy

DR GREENOUGH said he had not intended to cover the entire ground of psoriasis in his paper The omission of a consideration of seborrhœa was an oversight In regard to pigmentation, he referred especially to those cases of psoriasis of the trunk, which were most apt to be confounded with syphilides

DR J C WHITE, of Boston, then reported some

CASES OF ANGIOMA PIGMENTOSUM ET ATROPHICUM

Two cases were reported The first patient was a young man 17 years of age, and a Russian Pole by birth Freckles appeared on his face before he was 2 years of age These increased in number until the age of 6 When the telangiectasic condition first appeared is not noted When seen, the patient was well developed and apparently *in good health* He has, however, grown slowly, and is now no larger than a boy of 12 The hair of the head is abundant and intensely black The eyes are also black

Present Condition —Melanosis The forehead and lower portion of the face are of a dark brown color, and on close inspection, small spots of a darker color are seen The whole trunk is as dark as the skin of a dark Spaniard The scrotum is very black, and the penis and glans present dark spots The arms and hands are thickly spattered The legs are also affected On the right thigh there is one spot of dark color, covered with rather long hair The mucous membrane of the mouth and pharynx is free from melanosis

The Atrophic Condition —On the right side of the face occupying one half the surface is a sharply defined area of white cicatricial looking skin Similar areas are seen on the other cheek, forehead and about the mouth A few white spots are seen on other portions of the body The sensibility of the affected areas is decidedly lessened

Telangiectasis —Over parts of the face, there are bright red spots, varying in size from a pin's head to a pea They are most noticeable in the atrophied portions Within the lids, there are two angiomatous new growths Several vascular twigs are also seen on the face A few red points are found on the feneral surface

The second case is a brother of case 1, aged three years, born in New York When 18 months old, little colored freckles were noticed on the face Since then the condition has been developing His hair is dark brown and eyes are black The face is covered with numerous dark brown freckles The spots are so close together that at a little distance, the skin has a uniform color In some places, the spots are slightly elevated The backs of the hands are covered with dark-brown spots, elsewhere the skin is clear There are no leucodermic spots and no angiomatous condition

From a study of these cases, he concluded that in the beginning, the development of these spots can not be distinguished from ordinary freckles Gradually they multiply until they involve a considerable portion of the skin It is probably, that several years may advance without other manifestation of the disease The telengiectasic condition is probably secondary In the first case it is most developed in the atrophic portion It is probable that in this case, there will be hypertrophy of the epithelium and final transformation into epithelioma This has been the result in the thirty-three cases which have been reported

DR TAYLOR thought that there was a direct relation between the red spots and the macules The history of the cases which he had seen, had been first a rash, then the red spots, and then the macules In one case, the telemectasis followed exposure to heat

DR WHITE recognised a great difference in this disease as described by various writers, but he insisted on the correctness of his own observation The younger child had exhibited none of the precedent hyperæmia which has been noted in some cases The patient has been observed after exertion and when exposed to intense heat, but there has been no hyperæmia The same is true of the first case as far as known In the second case which is still developing, there is no enlargement of the vessels

(*To be concluded*)

FOREIGN CORRESPONDENCE

LETTER FROM PARIS

(FROM OUR OWN CORRESPONDENT)

Passage of Pathogenic Microbes from the Mother to Fœtus The Couveuse—Experiments after Decapitation Duration of the Excitability of the Brain—The Death of Milne Edwards

M Koubassoff lately made a very interesting communication at the Academy of Sciences relative to the passage of pathogenic microbes from the mother to the fœtus and of the passage of the parasite of charbon in particular, which has a real practical importance as regards the preservative action of charbon inoculation The following is a summary of M Koubassoff's note on the subject 1 The bacilli of charbon always pass from the mother to the fœtus, 2 The longer the duration of time that elapses between the inoculation of the pregnant female and her death, the more numerous will be the microbes in the fœtus, 3 A greater number of virulent bacilli of charbon than those of the attenuated kind always passes from the mother to the fœtus, 4 The pathological condition of the membranes of the placenta and of the fœtus, as well as the death of the latter, prevent the passage of the bacilli from the mother to the fœtus, 5 The inoculation of pregnant females with too strong vaccine material causes almost always the death of the fœtus, 6 The inoculation with cultivated material of a pregnant female, who has already been inoculated, almost always kills the fœtus—those who survive after the inoculation with cultivated material are those that have not been sufficiently vaccinated by the mother

In a former letter I gave an account of a cradle adopted at the Paris Maternity for the use of new-born infants of feeble constitutions, and particularly for those of premature birth, to which the name of "couveuse" was given This brought up the reduced temperature of the infants to about the normal (37° C), and, by a simple arrangement, maintained it at that degree Professor Tarnier, surgeon-accoucheur at the Maternity has now introduced a system of feeding such infants with milk passed through an india-rubber catheter (No 16 of the French scale), one end of which is introduced into the stomach, and to the other end is adapted a small glass funnel, through which is passed from three to fifteen grammes of milk, that of a woman being preferred As soon as the milk enters the stomach the catheter should be removed without delay, as otherwise vomiting may be provoked, which, of course, would render the operation useless The "gavage," as this mode of feeding is termed in French, should be repeated every hour, and continued until the infant is strong enough to suck for itself Professor Tarnier is convinced that infants born before the seventh month, and even those of the sixth month, could be brought up in this way At this meeting of the Academy M Tarnier presented two infants whose lives were saved by this method The first was one of twins It weighed 1,020 grammes at its birth, and the mother stated that the date of conception could scarcely extend beyond six months The weight of the infant, a short time after its birth, fell to 950 grammes, but under the influence of this artificial feeding it soon mounted up to 1,015 grammes Twenty days after its birth the child was able to take the breast Its twin brother, born with a weight of 1,120 grammes—that is to say, with a superior weight—did not survive The second infant that was presented was seen by M Tarnier only three days after its birth , its weight, which was 1,100 grammes, descended to 1,000 grammes, but under the influence of the gavage it rose gradually, and at the date of its presentation, it was scarcely a month old, it weighed 1,500 grammes This method of feeding infants of weak constitutions whatever be the cause, and if unable to take the breast, would, M Tarnier thinks, be the means of saving many a life, and he added in his note on the subject that the couveuse would be an indispensable complement to the above method in such circumstances, for he has seen infants affected with sclerema, appearing to be doomed to imminent death, recover in twenty-four or thirty-six hours

With reference to the experiments that were performed on the head of a man guillotined at Troyes and to those that were performed previously under the same circumstances, M Paul Bert made the fol-remarks at a recent meeting of the Societé de Biologie of Paris In a general way it appeared to him that such experiments were of little or no value, and those who performed them exposed themselves to a great moral responsibility The objects in view in performing these experiments may be divided into two categories—the one, to study on the decapitated man the mechanism of a certain number of phenomena of the circulation, of secretion, etc These results may be obtained by practising on animals, and in ten times better conditions In the other groups of experiments it is proposed to determine whether, after decapitation, intelligence persists, or whether it has disappeared, and, in the latter case, whether it is possible to make it reappear It is now generally admitted that after decapitation consciousness is abolished, and even admitting that, by means of the artificial injection of blood, it may appear to be re-established, which, however, is only a hypothesis, yet M Bert thinks one has no right to try such an experiment, as he compares it to torture post mortem

This debate was renewed at a subsequent meeting of the Academy of Sciences, in which Professor Vulpian took part This learned physiologist quite agreed with M Paul Bert, and added that to perform such experiments was to follow a chimera, as they never give any results worth having Hence it would be inexcusable in any person moved by scientific passion to continue such practices

At the same meeting Professor Vulpian gave an account of some experiments he had performed to ascertain the duration of the excitability of the brain after death In exposing the brain of a dog at the moment of its death it is noticed that the cerebral substance is still excitable during a period varying from forty five to sixty seconds, that is to say that, under the influence of Faradic excitation of one side of the brain, movements are still produced on the opposite side which extend to the extremities and then to the face When this time is passed, the Faradic excitations, even the strongest, do not determine the least muscular quivering of the opposite side These experiments were performed on an adult dog, but it is probable that the results would be identical in other mammifers, except in hibernating animals in a state of hibernation

M Milne-Edwards, the celebrated naturalist, whose health had been declining for some time, died on the 28th inst , in the 86th year of his age He took his degree of Doctor of Medicine of the Faculty of Paris in 1823 After some years he devoted himself entirely to the study of the natural sciences He was for many years Dean of the Academy of Sciences, and Member of the Academy of Medicine He was Grand Officier of the Legion of Honor, and member of several learned societies in France and other countries A B

LETTER FROM LONDON

(FROM OUR OWN CORRESPONDENT)

The Use of Alcohol in Sickness—Over Pressure in Schools—The Congress of Teachers of the Blind—Cholera Beds at St Bartholomew's Hospital—Deodorization of Sewers—How to Bring up Babies—The Gordon Memorial Hospital

At least two interesting papers were read at the meeting of the British Medical Association at Cardiff Dr Norman Kerr's subject was "Ought we to Prescribe Alcohol?" and his moderate and sensible remarks may be recommended to the consideration of every physician There were medical men (said Dr Kerr) who seemed to order wine and spirits for patients of both sexes, and at all ages, in every ailment There were, again, daring innovators who denied that alcohol in any form or in any quantity possesses useful medicinal virtues Medical men ought to limit their prescription of alcohol to the occasion, taking care that the medicine was not continued after the purpose for which the stimulant was given had been gained This pretty fairly sums up the whole question There is small doubt, on the one hand, that many people, especially ladies, have been led into habits of secret drinking by the insidious advice of accommodating medical men, and on the other hand, it is idle to deny that, under some circumstances, wine and spirits are not only useful, but necessary medicines The difficulty is how to prescribe alcohol in moderation without encouraging its use after the necessity has passed, and if Dr Norman Kerr succeeds in showing how to avoid this dilemma, he will have deserved well

The other paper, that of Dr I Martin on "Over-Pressure in Schools," ought to prove instructive to educational fanatics Over-pressure, according to Dr Martin, injures health and produces misery, both for parents and children "Children had to pore over their lessons until ten, eleven, and twelve o'clock at night Next morning the child could not eat its breakfast, and then followed headaches, vomiting, nervous debility, brain fever, St. Vitus' dance, curvature of the spine, heart disease, myopia, and in some cases convulsions and death." Dr. Martin went on to quote the authority of Professor Pfluger for the statement that, of 45,000 children examined in Germany, half suffered from defective vision, and from 30 to 40 per cent. of the girls from curvature of the spine.

At the opening of the Congress of Teachers of the Blind at Amsterdam, nearly 200 members from all parts of Europe were present. The President, Herr Meyer, from the Amsterdam Institute, announced that the Queen of Holland had consented to become the patron of the Congress. The Home Minister was present at the first sitting. The leading feature of the day was an address by Dr. Armitage, of London, upon American institutions for the blind. An exhibition of the works of the blind has been opened in the University buildings.

At St. Bartholomew's Hospital, forty beds have been kept ready for the reception of any cases of cholera that may be brought to the doors, should that disease unfortunately visit our shores, and an entire wing, containing nearly two hundred beds, could at a very short notice be prepared for the reception of similar cases. This wing, isolated from other wings, would be nursed by a separate staff of skilled nurses. Dr. Norman Moore having been appointed Resident Physician, responsible for the reception and immediate treatment of cases, has given up his summer holiday in order that he may be continuously on duty in the event of his services being required. At Plymouth, also, active precautions are being adopted. An old man of war has been moored in the Sound, and the local authorities are making arrangements to transfer there immediately all suspected cases.

The Metropolitan Board of Works have this summer taken effective measures to deodorize the outfalls and main sewers. They are now pouring into the sewers of the metropolis and at the outfalls between thirty and forty tons of manganate of soda, and from ten to twelve tons of sulphuric acid every day, and are spending between £3,000 and £4,000 a week in thus deodorizing the sewers and outfalls. The result of this work has been that the condition of the Thames might be said to be good. There are perhaps sections of discolored water, but they are offensive only to the eye, and not offensive to the smell.

The town council of Exeter have just issued a circular, which has been sent round to the women of the city, instructing them "how to bring up babies." The council, it appears, have been alarmed by the large amount of infant mortality in the city. They have therefore conferred, and the result is that they call upon the women of Exeter to keep their babies warm, to give them nightgowns with long sleeves, and to wash them all over every day. Two months babies must have milk from the breast once in two or three hours, and a six months child five times in twenty-four hours. The baby should be weaned when seven months old. The bottles, it is added, should draw easily and be kept well rinsed.

As the authorities have been unable to decide upon a suitable site on the Suez Canal for the erection of the proposed Memorial Hospital to the late General Gordon, the hospital at Port Said has been materially improved, and latrines will be erected as soon as it is determined whether the dry earth system or the pneumatic cart should be adopted. G. O. M.

DOMESTIC CORRESPONDENCE.

AN OPEN LETTER TO THE EDITOR OF THE MEDICAL NEWS, OF PHILADELPHIA, PA.

Dear Sir:—As a subscriber to your journal, and as one who is wedded to the medical profession by more than fifty years of unceasing devotion to its high behests, I may justly claim the privilege, if not the right to address you, who have hitherto been acknowledged as one of the honored exponents of medicine and an able defender of its unimpeachable *Code of Ethics* as set forth in the Constitution and By-Laws of the American Medical Association. And I claim that I can with propriety address you, since as delegate to the American Medical Association, at its late session in New Orleans, from the Louisiana State Medical Society, I did not approve in its entirety the action of that body towards the Original Committee appointed at the Washington meeting in 1884, to invite, in the name of the medical profession of the United States, the meeting of the next International Medical Congress in this country, and to make all suitable arrangements for its meeting, if the invitation was accepted.

While I believe, and affirm, that the Original Committee erred and acted unwisely, and in opposition to the enlightened judgment of a vast majority of the medical profession of the United States, in whose name the invitation had been extended, and in direct conflict with the honor and integrity and dignity of the American Medical Association, in selecting and appointing to posts of honor men notoriously antagonizing and setting at naught the Code of Principles and Ethics unanimously adopted, and cherished by our best men as cardinal and sacred, binding together all true men in the profession, yet as the Committee acted in good faith, and, as they believed, for the best interests of the profession, I thought their action ought to be courteously endorsed and supplemented by a vigorous and cheerful support. But a majority of the delegates thought differently and deemed it best to add to the Original Committee other members, from all the States and Territories, to make the work more national and unsectional, and more truly to represent the medical profession of the United States in the International Medical Congress, to meet in Washington City in 1887.

Words cannot express the pain and mortification which your course, and language in the *Medical News*, have given me in relation to this subject. Instead of counseling harmony and mutual concessions in the interest of peace and the preservation of the integrity and honor of the medical profession, you have seemed to take pleasure in magnifying the diftion could scarcely extend beyond six months The weight of the infant, a short time after its birth, fell to 950 grammes, but under the influence of this artificial feeding it soon mounted up to 1,015 grammes Twenty days after its birth the child was able to take the breast Its twin brother, born with a weight of 1,120 grammes—that is to say, with a superior weight—did not survive The second infant that was presented was seen by M Tarnier only three days after its birth, its weight, which was 1,100 grammes, descended to 1,000 grammes, but under the influence of the gavage it rose gradually, and at the date of its presentation, it was scarcely a month old, it weighed 1,500 grammes This method of feeding infants of weak constitutions whatever be the cause, and if unable to take the breast, would, M Tarnier thinks, be the means of saving many a life, and he added in his note on the subject that the couveuse would be an indispensable complement to the above method in such circumstances, for he has seen infants affected with sclerema, appearing to be doomed to imminent death, recover in twenty-four or thirty-six hours

With reference to the experiments that were performed on the head of a man guillotined at Troyes, and to those that were performed previously under the same circumstances, M Paul Bert made the fol remarks at a recent meeting of the Societe de Biologie of Paris In a general way it appeared to him that such experiments were of little or no value, and those who performed them exposed themselves to a great moral responsibility The objects in view in performing these experiments may be divided into two categories—the one, to study on the decapitated man the mechanism of a certain number of phenomena of the circulation, of secretion, etc These results may be obtained by practising on animals, and in ten times better conditions In the other groups of experiments it is proposed to determine whether, after decapitation, intelligence persists, or whether it has disappeared, and, in the latter case, whether it is possible to make it reappear It is now generally admitted that after decapitation consciousness is abolished, and even admitting that, by means of the artificial injection of blood, it may appear to be re'established, which, however, is only a hypothesis, yet M Bert thinks one has no right to try such an experiment, as he compares it to torture post-mortem

This debate was renewed at a subsequent meeting of the Academy of Sciences, in which Professor Vulpian took part This learned physiologist quite agreed with M Paul Bert, and added that to perform such experiments was to follow a chimera, as they never give any results worth having Hence it would be inexcusable in any person moved by scientific passion to continue such practices

At the same meeting Professor Vulpian gave an account of some experiments he had performed to ascertain the duration of the excitability of the brain after death In exposing the brain of a dog at the moment of its death it is noticed that the cerebral substance is still excitable during a period varying from forty five to sixty seconds, that is to say that, under the influence of Faradic excitation of one side of the brain, movements are still produced on the opposite side which extend to the extremities and then to the face When this time is passed, the Faradic excitations, even the strongest, do not determine the least muscular quivering of the opposite side These experiments were performed on an adult dog, but it is probable that the results would be identical in other mammifers, except in hibernating animals in a state of hibernation

M Milne-Edwards, the celebrated naturalist, whose health had been declining for some time, died on the 28th inst, in the 86th year of his age He took his degree of Doctor of Medicine of the Faculty of Paris in 1823 After some years he devoted himself entirely to the study of the natural sciences He was for many years Dean of the Academy of Sciences, and Member of the Academy of Medicine He was Grand Officier of the Legion of Honor, and member of several learned societies in France and other countries A B

LETTER FROM LONDON

(FROM OUR OWN CORRESPONDENT)

The Use of Alcohol in Sickness—Over-Pressure in Schools—The Congress of Teachers of the Blind—Cholera Beds at St Bartholomew's Hospital—Deodorization of Sewers—How to Bring up Babies—The Gordon Memorial Hospital

At least two interesting papers were read at the meeting of the British Medical Association at Cardiff Dr Norman Kerr's subject was "Ought we to Prescribe Alcohol?" and his moderate and sensible remarks may be recommended to the consideration of every physician There were medical men (said Dr Kerr) who seemed to order wine and spirits for patients of both sexes, and at all ages, in every ailment There were, again, daring innovators who denied that alcohol in any form or in any quantity possesses useful medicinal virtues Medical men ought to limit their prescription of alcohol to the occasion, taking care that the medicine was not continued after the purpose for which the stimulant was given had been gained This pretty fairly sums up the whole question There is small doubt, on the one hand, that many people, especially ladies, have been led into habits of secret drinking by the insidious advice of accommodating medical men, and on the other hand, it is idle to deny that, under some circumstances, wine and spirits are not only useful, but necessary medicines The difficulty is how to prescribe alcohol in moderation without encouraging its use after the necessity has passed, and if Dr Norman Kerr succeeds in showing how to avoid this dilemma, he will have deserved well

The other paper, that of Dr I Martin on "Over Pressure in Schools," ought to prove instructive to educational fanatics Over-pressure, according to Dr Martin, injures health and produces misery, both for parents and children "Children had to pore over their lessons until ten, eleven, and twelve o'clock at night Next morning the child could not eat its breakfast, and then followed headaches, vomiting, nervous debility, brain fever, St Vitus' dance, curvature of the spine, heart disease, myopia, and in some cases convulsions and death" Dr Martin went on to quote the authority of Professor Pfluger for the statement that, of 45,000 children examined in Germany, half suffered from defective vision, and from 30 to 40 per cent of the girls from curvature of the spine

At the opening of the Congress of Teachers of the Blind at Amsterdam, nearly 200 members from all parts of Europe were present The President, Herr Meyer, from the Amsterdam Institute, announced that the Queen of Holland had consented to become the patron of the Congress The Home Minister was present at the first sitting The leading feature of the day was an address by Dr Armitage, of London, upon American institutions for the blind An exhibition of the works of the blind has been opened in the University buildings

At St Bartholomew's Hospital, forty beds have been kept ready for the reception of any cases of cholera that may be brought to the doors, should that disease unfortunately visit our shores, and an entire wing, containing nearly two hundred beds, could at a very short notice be prepared for the reception of similar cases This wing, isolated from other wings, would be nursed by a separate staff of skilled nurses Dr Norman Moore having been appointed Resident Physician, responsible for the reception and immediate treatment of cases, has given up his summer holiday in order that he may be continuously on duty in the event of his services being required At Plymouth, also, active precautions are being adopted An old man-of-war has been moored in the Sound, and the local authorities are making arrangements to transfer there immediately all suspected cases

The Metropolitan Board of Works have this summer taken effective measures to deodorize the outfalls and main sewers They are now pouring into the sewers of the metropolis and at the outfalls between thirty and forty tons of manganate of soda, and from ten to twelve tons of sulphuric acid every day, and are spending between £3,000 and £4,000 a week in thus deodorizing the sewers and outfalls The result of this work has been that the condition of the Thames might be said to be good There are perhaps sections of discolored water, but they are offensive only to the eye, and not offensive to the smell

The town council of Exeter have just issued a circular, which has been sent round to the women of the city, instructing them "how to bring up babies" The council, it appears, have been alarmed by the large amount of infant mortality in the city They have therefore conferred, and the result is that they call upon the women of Exeter to keep their babies warm, to give them nightgowns with long sleeves, and to wash them all over every day Two months babies must have milk from the breast once in two or three hours, and a six months child five times in twenty four hours The baby should be weaned when seven months old The bottles, it is added, should draw easily and be kept well rinsed

As the authorities have been unable to decide upon a suitable site on the Suez Canal for the erection of the proposed Memorial Hospital to the late General Gordon, the hospital at Port Said has been materially improved, and latrines will be erected as soon as it is determined whether the dry earth system or the pneumatic cart should be adopted G O M

DOMESTIC CORRESPONDENCE

AN OPEN LETTER TO THE EDITOR OF THE MEDICAL NEWS, OF PHILADELPHIA, PA

Dear Sir —As a subscriber to your journal, and as one who is wedded to the medical profession by more than fifty years of unceasing devotion to its high behests, I may justly claim the privilege, if not the right to address you, who have hitherto been acknowledged as one of the honored exponents of medicine and an able defender of its unimpeachable *Code of Ethics* as set forth in the Constitution and By Laws of the American Medical Association And I claim that I can with propriety address you, since as delegate to the American Medical Association, at its late session in New Orleans, from the Louisiana State Medical Society, I did not approve in its entirety the action of that body towards the Original Committee appointed at the Washington meeting in 1884, to invite, in the name of the medical profession of the United States, the meeting of the next International Medical Congress in this country, and to make all suitable arrangements for its meeting, if the invitation was accepted

While I believe, and affirm, that the Original Committee erred and acted unwisely and in opposition to the enlightened judgment of a vast majority of the medical profession of the United States, in whose name the invitation had been extended, and in direct conflict with the honor and integrity and dignity of the American Medical Association, in selecting and appointing to posts of honor men notoriously antagonizing and setting at naught the Code of Principles and Ethics unanimously adopted, and cherished by our best men as cardinal and sacred, binding together all true men in the profession, yet as the Committee acted in good faith, and, as they believed, for the best interests of the profession, I thought their action ought to be courteously endorsed and supplemented by a vigorous and cheerful support But a majority of the delegates thought differently and deemed it best to add to the Original Committee other members, from all the States and Territories, to make the work more national and unsectional, and more truly to represent the medical profession of the United States in the International Medical Congress, to meet in Washington City in 1887

Words cannot express the pain and mortification which your course, and language in the *Medical News*, have given me in relation to this subject Instead of counseling harmony and mutual concessions in the interest of peace and the preservation of the integrity and honor of the medical profession, you have seemed to take pleasure in magnifying the differences of opinion, in stirring up strife and sowing dissensions and even hatreds between members of the medical profession That one, who heretofore has so nobly defended the Code of Ethics and the honor and integrity of the American Medical Association against the few agitators in New York who presumptuously imagine that they constitute the head and body of the entire medical profession of this country, and arrogantly set themselves up as above the American Medical Association, that you, its former friend and supporter, should in this the first trying hour of its nationality and authority, turn against her as you have done, is humiliating to the medical profession and mortifying to your readers

You very erroneously, I think, assert in the *Medical News* that the American Medical Association does not represent the medical profession of the United States Pray, sir, with all due deference, if the American Medical Association does not represent the medical profession of the United States, what medical organization does?

You are equally mistaken when you presume to claim that the few learned and scientific men in Philadelphia, New York, Boston, Baltimore, and Washington City, who are antagonizing the authority and action of the American Medical Association, are superior, in point of intelligence and scientific medical knowledge, to those who will not surrender their honor, but manfully and nobly sustain our national medical organization And let me assure you, that the few who are rendering themselves ignobly conspicuous in trying to obstruct the action of our National Association, are not the real leaders of American thought and opinion in this country, as you seem to think they are, and as they claim for themselves But you may, by distortion of facts and misrepresentation of honest differences of opinion, succeed in defeating the successful meeting of the contemplated International Medical Congress in this country in 1887, and you may disintegrate and disrupt the American Medical Association, but if so, what will you have gained? What will be your reward but remorse and chagrin? My dear sir, think of the consequences, retrace your steps, recall your words of evil import before it is too late, and use your talent and acknowledged ability in counselling peace and harmony in the profession, by mutual and honorable concessions on the part of each side "*Blessed are the peace-makers*" Respectfully,

RICHARD H DAY

Baton Rouge, La , August 22, 1885

THE ORIGINAL COMMITTEE ON ORGANIZATION OF THE INTERNATIONAL CONGRESS

TO THE EDITOR OF THE JOURNAL

Dear Sir —Sir James Paget's letter on the subject of the International Congress, is a wonderful example of the fulfilment of a prophecy of what he would write, made some time since by one of the self-elect How far Sir James was inspired, the privacy of the mail prevents our knowing, but for his benefit and that of the various foreign journals which are being brought into service at this time with surprising simultaneity, the following facts are here set forth, to which not one of them have yet referred

I That the Committee of Seven (afterwards eight) who were appointed *by the American Medical Association* to invite the Congress to the United States, and to make a preliminary organization, were

1 Austin Flint, Sr , of New York
2 I Minis Hays, of Philadelphia
3 J S Billings, of U S Army
4 J M Browne, of U S Navy
5 C Johnston, of Baltimore
6 L A Sayre, of New York
7 G J Engelmann, of St Louis
8 H F Campbell, of Augusta

II That the principal officers selected for the Congress *by these seven* (eight) were

1 Austin Flint, Sr , *President, and Member of Executive Committee*
2 I Minis Hays, *Chairman of Executive Committee*
3 J S Billings, *Secretary-General, and Member of Executive Committee*
4 J M Browne, *Treasurer, and Member of Executive Committee*
5 C Johnston, *Member of Executive Committee*

This constituted a *majority* of the Executive Committee, which is all anybody wants in an executive body The others were, however, not wholly unprovided for

6 G J Engelmann, *Secretary of the Section of Gynecology*
7 H F Campbell, *Vice-President of the Congress*

Perhaps Sir James Paget will favor us with some deductions from the premises, and oblige A M A

BOOK REVIEWS

THE TECHNOLOGY OF BACTERIA INVESTIGATION EXPLICIT DIRECTIONS FOR THE STUDY OF BACTERIA, ETC By CHARLES S DOLBY, M D Published by S E Casino & Co , Boston Chicago Jansen, McClurg & Co

This work is intended to give quite exhaustively the methods used by various observers in the study of bacteria In the first part, entitled "General Directions," the different methods which have been employed for studying bacteria in air, water, living organisms, and preserved or hardened specimens, are described Special methods of preparation for photographic purposes are also considered, as well as the various forms of culture experiments, vaccination and inoculation experiments, and the general biological phenomena of bacteria The second part is devoted to descriptions of the methods that have been used for finding and studying the special microbes of the different diseases Twenty-five such diseases are considered, and when more than one form of microbe has been found and thought pathogenic by different observers, each has been described Part third is devoted to formulæ of the various staining and other reagents, and culture media

The book will therefore be seen to be quite exhaustive in its description of methods of study. Little or no space is devoted to a discussion of the true pathogenic nature of the various microbes, but all is given to a consideration of the technology of the study. The book will, therefore, be found particularly valuable to those who wish to study bacteria practically in the laboratory. The author, in the preface, expresses the wish that it may stimulate such work in this country, a wish in which we heartily unite with him.

A particularly valuable feature of the book is the very full enumeration of the works constituting the literature, which is appended to each subject.

ASSOCIATION ITEMS.

MEMBERSHIP BY APPLICATION.

At the meeting of the American Medical Association held at Washington, in May, 1884, an amendment to Regulation II was adopted, which provides that membership in the Association shall be obtainable by any member of a State or County Medical Society recognized by the Association, upon application endorsed by the President and Secretary of said Society, and shall be retained so long as he shall remain in good standing in his local Society, and shall pay his annual dues to the Association. Hitherto attendance as a delegate at an annual meeting has been necessary in order to obtain such membership.

Application for membership, accompanied with Five Dollars, for annual dues, and the Certificate of Membership in the local Society, should be sent directly to the undersigned, on receipt of which the weekly Journal of the Association will be forwarded for one year.

Richard J. Dunglison, M.D., *Treasurer*,
Lock Box 1274, Philadelphia, Pa.

MISCELLANEOUS.

MEDICAL SOCIETY OF VIRGINIA—SIXTEENTH ANNUAL SESSION.

The Medical Society of Virginia will convene at Alleghany Springs, Montgomery County, Va., at 7.30 o'clock, Tuesday night, September 15, 1885. Alleghany Springs is about four miles from Shawsville, on the Norfolk and Western Railroad, twenty-three miles west of Roanoke, and seventy seven miles west of Lynchburg. Shawsville is the station for which all railroad passengers must secure their tickets.

The Address of Welcome will be delivered by Dr. Isaac White, Physician to the Springs, and the Report of the Committee to Nominate Applicants for Fellowship will be presented and acted on. Dr. H. M. Clarkson, of Hay Market, Va., will then deliver the Address to the Public and Profession. The President, Dr. Samuel K. Jackson, of Norfolk, will then deliver the President's Address. Dr. Isaac White, of Shawsville, Va., will read a paper on the Medical Virtues of the Alleghany Springs Water, Va. Any business of a general character may next be transacted, and announcements of programme, etc., will be made before adjournment. On Wednesday morning, the Society will be called to order at 10 o'clock. After the usual form of opening the meeting, the Reports of the Secretaries, the Treasurer, the Committee on Publications, the Executive Committee, the Necrological Committee, the Committee appointed in 1884 to confer with the professions of Virginia, West Virginia and North Carolina with reference to the organization of a Tri-State Medical Association (Dr. Joseph A. White, Richmond, Chairman), and the Report from the State Board of Medical Examiners, will be severally called for and disposed of. New business may be then introduced.

The subject for general discussion—Scarlet Fever—will be taken up at 11.30 A.M., Dr. Thomas J. Moore, Richmond, Va., leader. After Dr. Moore will have opened the discussion, other Fellows and delegates will be entitled to the floor for remarks in the order in which they may be recognized by the Chair. It is expected that those who enter into the discussion will prepare their papers beforehand, or else, immediately after the discussion, will furnish notes of what they may have said to the Secretary, in order that the remarks may be correctly entered on the records of the session, and thus prove of lasting value to the Society. If any time remains after the discussions till dinner hour, it may be occupied by new business, motions, communications, etc.

The Afternoon Session will be devoted to the election of officers and annual committees, including the Necrological Committee for the succeeding term, and of the Fellow to deliver the Address to the Public and Profession in 1886. The election of Honorary Fellows will also be in order, as also the selection of the subject for general discussion, 1886, and the leader in the discussion. The place of meeting of the Seventeenth Annual Session is also to be selected.

The Night Session will open with the call for Reports on Advances in the several departments of medical sciences, and the following order will be observed until adjournment to Thursday morning, when the call will be continued until the order is completed:

1. *Report on Anatomy and Physiology*, by Dr. J. O. Jones, of Harrisonburg.

2. *Report on Chemistry, Pharmacy, Materia Medica and Therapeutics*, by Dr. M. G. Ellzey, Washington, D. C.

3. *Report on Obstetrics and Diseases of Women and Children*, by Dr. S. W. Dickinson, Marion, Va. In this section the following papers will be presented: (*a*) Successful Treatment of Lacerations of the Os Uteri, without Surgical Operation. By Dr. Bedford Brown, Alexandria, Va. (*b*) Puerperal Septicæmia, especially with Regard to Prophylaxis and Etiology. By Honorary Fellow Dr. George T. Harrison, New York, N. Y. (*c*) Infanticide. By Dr. Chas. R. Cullen, Henrico Co., Va.

4. *Report on Surgery*, by Dr. H. Grey Latham, Lynchburg, Va. In this section the following paper will be presented: (*a*) Treatment of Hip Joint Disease. By Dr. Lewis Wheat, Richmond, Va.

ferences of opinion, in stirring up strife and sowing dissensions and even hatreds between members of the medical profession That one, who heretofore has so nobly defended the Code of Ethics and the honor and integrity of the American Medical Association against the few agitators in New York who presumptuously imagine that they constitute the head and body of the entire medical profession of this country, and arrogantly set themselves up as above the American Medical Association, that you, its former friend and supporter, should in this the first trying hour of its nationality and authority, turn against her as you have done, is humiliating to the medical profession and mortifying to your readers

You very erroneously, I think, assert in the *Medical News* that the American Medical Association does not represent the medical profession of the United States Pray, sir, with all due deference, if the American Medical Association does not represent the medical profession of the United States, what medical organization does?

You are equally mistaken when you presume to claim that the few learned and scientific men in Philadelphia, New York, Boston, Baltimore, and Washington City, who are antagonizing the authority and action of the American Medical Association, are superior, in point of intelligence and scientific medical knowledge, to those who will not surrender their honor, but manfully and nobly sustain our national medical organization And let me assure you, that the few who are rendering themselves ignobly conspicuous in trying to obstruct the action of our National Association, are not the real leaders of American thought and opinion in this country, as you seem to think they are, and as they claim for themselves But you may, by distortion of facts and misrepresentation of honest differences of opinion, succeed in defeating the successful meeting of the contemplated International Medical Congress in this country in 1887, and you may disintegrate and disrupt the American Medical Association, but if so, what will you have gained? What will be your reward but remorse and chagrin? My dear sir, think of the consequences, retrace your steps, recall your words of evil import before it is too late, and use your talent and acknowledged ability in counselling peace and harmony in the profession, by mutual and honorable concessions on the part of each side "*Blessed are the peace-makers*" Respectfully,

RICHARD H DAY

Baton Rouge, La , August 22, 1885

THE ORIGINAL COMMITTEE ON ORGANIZATION OF THE INTERNATIONAL CONGRESS

TO THE EDITOR OF THE JOURNAL

Dear Sir —Sir James Paget's letter on the subject of the International Congress, is a wonderful example of the fulfilment of a prophecy of what he would write, made some time since by one of the self-elect How far Sir James was inspired, the privacy of the mail prevents our knowing, but for his benefit and that of the various foreign journals which are being brought into service at this time with surprising simultaneity, the following facts are here set forth, to which not one of them have yet referred

I That the Committee of Seven (afterwards eight) who were appointed *by the American Medical Association* to invite the Congress to the United States, and to make a preliminary organization, were

1 Austin Flint, Sr , of New York
2 I Minis Hays, of Philadelphia
3 J S Billings, of U S Army
4 J M Browne, of U S Navy
5 C Johnston, of Baltimore
6 L A Sayre, of New York
7 G J Engelmann, of St Louis
8 H F Campbell, of Augusta

II That the principal officers selected for the Congress *by these seven* (eight) were

1 Austin Flint, Sr , *President, and Member of Executive Committee*
2 I Minis Hays, *Chairman of Executive Committee*
3 J S Billings, *Secretary General, and Member of Executive Committee*
4 J M Browne, *Treasurer, and Member of Executive Committee*
5 C Johnston, *Member of Executive Committee*

This constituted a *majority* of the Executive Committee, which is all anybody wants in an executive body The others were, however, not wholly unprovided for

6 G J Engelmann, *Secretary of the Section of Gynecology*
7 H F Campbell, *Vice-President of the Congress*

Perhaps Sir James Paget will favor us with some deductions from the premises, and oblige A M A

BOOK REVIEWS

THE TECHNOLOGY OF BACTERIA INVESTIGATION EXPLICIT DIRECTIONS FOR THE STUDY OF BACTERIA, ETC By CHARLES S DOLBY, M D Published by S E Casino & Co , Boston Chicago Jansen, McClurg & Co

This work is intended to give quite exhaustively the methods used by various observers in the study of bacteria In the first part, entitled "General Directions," the different methods which have been employed for studying bacteria in air, water, living organisms, and preserved or hardened specimens, are described Special methods of preparation for photographic purposes are also considered, as well as the various forms of culture experiments, vaccination and inoculation experiments, and the general biological phenomena of bacteria The second part is devoted to descriptions of the methods that have been used for finding and studying the special microbes of the different diseases Twenty-five such diseases are considered, and when more than one form of microbe has been found and thought pathogenic by different observers, each has been described Part third is devoted to formulæ of the various staining and other reagents, and culture media

The book will therefore be seen to be quite exhaustive in its description of methods of study Little or no space is devoted to a discussion of the true pathogenic nature of the various microbes, but all is given to a consideration of the technology of the study The book will, therefore, be found particularly valuable to those who wish to study bacteria practically in the laboratory The author, in the preface, expresses the wish that it may stimulate such work in this country, a wish in which we heartily unite with him

A particularly valuable feature of the book is the very full enumeration of the works constituting the literature, which is appended to each subject

ASSOCIATION ITEMS

MEMBERSHIP BY APPLICATION

At the meeting of the American Medical Association held at Washington, in May, 1884, an amendment to Regulation II was adopted, which provides that membership in the Association shall be obtainable by any member of a State or County Medical Society recognized by the Association, upon application endorsed by the President and Secretary of said Society, and shall be retained so long as he shall remain in good standing in his local Society, and shall pay his annual dues to the Association Hitherto attendance as a delegate at an annual meeting has been necessary in order to obtain such membership

Application for membership, accompanied with FIVE DOLLARS, for annual dues, and the Certificate of Membership in the local Society, should be sent directly to the undersigned, on receipt of which the weekly JOURNAL OF THE ASSOCIATION will be forwarded for one year

RICHARD J DUNGLISON, M D, *Treasurer*
Lock Box 1274, Philadelphia, Pa

MISCELLANEOUS

MEDICAL SOCIETY OF VIRGINIA—SIXTEENTH ANNUAL SESSION

The Medical Society of Virginia will convene at Alleghany Springs, Montgomery County, Va, at 7 30 o'clock, Tuesday night, September 15, 1885 Alleghany Springs is about four miles from Shawsville, on the Norfolk and Western Railroad, twenty-three miles west of Roanoke, and seventy seven miles west of Lynchburg Shawsville is the station for which all railroad passengers must secure their tickets

The Address of Welcome will be delivered by Dr Isaac White, Physician to the Springs, and the Report of the Committee to Nominate Applicants for Fellowship will be presented and acted on Dr H M Clarkson, of Hay Market, Va, will then deliver the Address to the Public and Profession The President, Dr Samuel K Jackson, of Norfolk, will then deliver the President's Address Dr Isaac White, of Shawsville, Va, will read a paper on the Medical Virtues of the Alleghany Springs Water, Va Any business of a general character may next be transacted, and announcements of programme, etc, will be made before adjournment On Wednesday morning, the Society will be called to order at 10 o'clock After the usual form of opening the meeting, the Reports of the Secretaries, the Treasurer, the Committee on Publications, the Executive Committee, the Necrological Committee, the Committee appointed in 1884 to confer with the professions of Virginia, West Virginia, and North Carolina with reference to the organization of a Tri State Medical Association (Dr Joseph A White, Richmond, Chairman), and the Report from the State Board of Medical Examiners, will be severally called for and disposed of New business may be then introduced

The subject for general discussion—Scarlet Fever—will be taken up at 11 30 A M, Dr Thomas J Moore, Richmond, Va, leader After Dr Moore will have opened the discussion, other Fellows and delegates will be entitled to the floor for remarks in the order in which they may be recognized by the Chair It is expected that those who enter into the discussion will prepare their papers beforehand, or else, immediately after the discussion, will furnish notes of what they may have said to the Secretary, in order that the remarks may be correctly entered on the records of the session, and thus prove of lasting value to the Society If any time remains after the discussions till dinner hour, it may be occupied by new business, motions, communications, etc

The Afternoon Session will be devoted to the election of officers and annual committees, including the Necrological Committee for the succeeding term, and of the Fellow to deliver the Address to the Public and Profession in 1886 The election of Honorary Fellows will also be in order, as also the selection of the subject for general discussion, 1886, and the leader in the discussion The place of meeting of the Seventeenth Annual Session is also to be selected

The Night Session will open with the call for Reports on Advances in the several departments of medical sciences, and the following order will be observed until adjournment to Thursday morning, when the call will be continued until the order is completed

1 *Report on Anatomy and Physiology*, by Dr I O Jones, of Harrisonburg

2 *Report on Chemistry, Pharmacy, Materia Medica and Therapeutics*, by Dr M G Ellzey, Washington, D C

3 *Report on Obstetrics and Diseases of Women and Children*, by Dr S W Dickinson, Marion, Va In this section the following papers will be presented (*a*) Successful Treatment of Lacerations of the Os Uteri, without Surgical Operation By Dr Bedford Brown, Alexandria, Va (*b*) Puerperal Septicæmia, especially with Regard to Prophylaxis and Etiology By Honorary Fellow Dr George T Harrison, New York, N Y (*c*) Infanticide By Dr Chas R Cullen, Henrico Co, Va

4 *Report on Surgery*, by Dr H Gray Latham, Lynchburg, Va In this section the following paper will be presented (*a*) Treatment of Hip Joint Disease By Dr Lewis Wheat, Richmond Va

5 *Report on Practice of Medicine*, by Dr Rives Tatum, Harrisonburg, Va In this section the following papers will be presented (*a*) Clinical Notes on Carcinomatous Affections of the Digestive Organs—the Unreliability of Gastric Symptoms as Evidences of Gastric Pathology By Dr R C Powell, Alexandria, Va (*b*) Etiology of Zymotic Diseases By Dr M A Rust, Richmond, Va (*c*) Dyspepsia, with Neurasthenia and Somnolence By Dr M L James, Richmond, Va

6 *Report on Hygiene and Public Health*, by Dr William H Coggeshall, Richmond, Va —his subject being Lessons Taught by the Recent Plymouth (Pa) Epidemic In this section the following paper will be presented (*a*) Cremation By Hon Fellow Dr J Edgar Chancellor, University of Virginia,

7 *Report on Ophthalmology and Otology*, by Dr Philip Taylor, Richmond, Va In this section the following papers will be presented (*a*) Clinical Notes and Practical Observations from Richmond Eye, Ear and Throat Infirmary By Dr Joseph A White, Richmond, Va , Senior Surgeon (*b*) Report of Cases of Tracheotomy in Lupus of Larynx and Diphtheria By Dr Chas M Shields, Richmond, Va

8 *Report on Psychology and Neurology*, by Dr Wm C Dabney, Charlottesville, Va When this order shall have been completed, call will next be made for Voluntary Scientific Papers, Contributions, and Reports Miscellaneous business matters not heretofore introduced or disposed of, will then be in order until the adjournment of this annual session

During this session, the Fellows and delegates in attendance will be the guests of the Alleghany Springs Management, and hence will not be charged for board and lodging On the arrival of each train at Shawsville, transfer coaches will be in waiting to convev passengers to the Springs—about three quarters of an hour's ride Liberal rates of travel have been made with railroads

Eastern bound trains (from Bristol, etc), arrive at Shawsville at 11 58 A M and 10 17 P M Western bound trains (from Lynchburg, etc), arrive at 8 47 A M and 9 03 P M

THE ALLEGHENY COUNTY MEDICAL SOCIETY AND THE INTERNATIONAL CONGRESS

At a meeting of the Allegheny County Medical Society, of Pennsylvania, held August 25, 1885, the resolutions passed at the July meeting were rescinded, and the following preamble and resolutions, offered by Drs E A Wood, J C Dunn and A M Pollock, were adopted by the Society

Whereas, In the unfortunate state of affairs now existing relative to the proposed meeting of the International Medical Congress to be held in Washington, D C , in 1877, it becomes the duty of every physician who has the welfare of the profession at heart to give the matters of difference calm and deliberate consideration, and

Whereas, The basis of organization of the International Congresses heretofore held has been broad enough to include the regular medical profession of all sections and countries, therefore be it

Resolved, That we reaffirm our allegiance to the American Medical Association and its Code of Ethics

Resolved, That we hereby endorse the action of the American Medical Association at its meeting in New Orleans whereby *from its own membership* it added to the original Committee of Arrangements one from each State and Territory and from the Medical Corps of the U S Army, U S Navy, and Marine Hospital Service

Resolved, That this Society endorses the action of the Committee of Arrangements at its recent meeting in Chicago, in deciding that all persons by it appointed to, or recommended for, *official positions* in said Congress, shall be members of Associations in *affiliation with and* therefore *responsible to* the American Medical Association

Resolved, As the deliberate sense of the Allegheny County Medical Society of Pennsylvania, that the proposed meeting of said International Medical Congress should be organized on the same liberal and enlightened foundation as those preceding, and to that end we earnestly recommend the Committee of Arrangements to discard the Code questions as far as *membership* is concerned, and to open the door to all members of the regular medical profession who may comply with the requirements of registration

Resolved, That the Secretary furnish a copy of the foregoing resolutions to the Secretary of the Committee of Arrangements, to the Secretary of the American Medical Association, and that he shall also furnish copies of the same to JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION and to the *Medical News* for publication J G CORNELL, Sec'y

Pittsburgh, Pa , Aug 27, 1885

DR EUGENIUS A HILDRETH, one of the most prominent physicians in Wheeling, W Va , died at his residence in that city on August 31, in the sixty-fourth year of his age He graduated at the Ohio Medical College in 1844 He was a member of the American Medical Association, of the West Virginia State Medical Society, and an honorary member of the California State Medical Society and of the Victoria Institute of Great Britain

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM AUGUST 22 1885 TO AUGUST 28 1885

Kane, Jno J , Capt and Assistant Surgeon, granted leave of absence for one month, to take effect when his services can be spared (S O 195, A G O , Aug 26, 1885)

Ebert, R G , Capt and Assistant Surgeon, assigned to temporary duty with U S troops at Riverside Park, N Y (S O 179, Dept of the East, Aug 24, 1885)

Stephenson, Wm , First Lieutenant and Assistant Surgeon, granted leave of absence for one month, to take effect Sept 1 1885 (Ft Niobrara, Neb) (S O 79, Dept of the Platte, Aug 20, 1885)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING AUGUST 28 1885

Jones Wm H , Surgeon, detached from the Wachusett, and waiting orders

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY
Vol V CHICAGO, SEPTEMBER 12, 1885 No 11

ORIGINAL ARTICLES

THE RÔLE OF BACTERIA IN PARTURITION[1]

BY HENRY O MARCY, M D ,
OF BOSTON MASS

About six years ago, in the Boston Gynecological Society, upon the subject of antiseptics in midwifery, I advocated that an instrumental labor should be conducted with all the antiseptic care and precaution of a major surgical operation Then, I found myself without support, now, I do not expect all to accept such a proposition If the subject was by any means settled, or such principles adopted, your attention would not be called to its discussion Few topics in the entire realm of medicine hold to day a deeper or more wide-spread interest, for which we are indebted in America, in no small degree, to the valuable paper by Dr Thomas last year before the New York Academy of Medicine, and the reply of his equally distinguished opponent, Dr Fordyce Barker, followed by a number of other contributors of scarcely less note holding various views The pendulum of thought is never still Upon certain phases of this subject it has appeared to have swung to the opposite, until now, in Harvard and other schools, it is taught that antiseptic injections should be used in all cases of normal labor as a routine practice

Dr Z B Adams, of Framingham, in a vigorous paper read in Boston this past winter, takes strong ground against the routine use of the vaginal douche in normal labor He claims that under such conditions the douche is not only useless, but harmful and injurious Dr Adams cited several cases in which serious results, death even had supervened Five or six fatal cases were reported in the experience of the members present, where it appeared probable that the result was due to the use of the douche The discussion was earnest and long continued, with evidence of wide difference of opinion It should not be difficult, abstractly, to state the problem which in this way at least is one of extreme simplicity If we accept that the fact of parturition normally as a physiological process, that the uterus is a closed aseptic cavity before delivery, one danger to be apprehended lies in the introduction, after delivery has been effected, of a new abnormal or pathological element, into the recently emptied organ This new factor, according to our recent knowledge and belief, is due to the development of a bacterial ferment Many erroneous doctrines are still taught in regard to the processes of reproduction, especially of the placental development

There can be little doubt that the catamenial decidua is the product which is elaborated by the uterine glands This is equally true of the uterine decidua *(decidua vera)* of pregnancy The numerous openings or holes which give the appearance of a sieve to the decidua, only indicate the points corresponding to the orifices of the utricular glands in the cavity of the uterus, which remain fully open to allow the constant passage of the product of secretion. In the early period of pregnancy this secretion is doubtless furnished for the nutrition of the fœtus, later this is elaborated by the complex glandular organ of new formation which we call placenta The serotinal cells are elaborated from the sub mucous layer of connective tissue, and, when separated, as a more or less perfectly formed placenta, there takes place an extensive traumatic lesion of the uterus on account of the laceration of the parts, which leaves bare the uterine tissue which had been covered by the placenta The muscular contraction and rapid shrinkage of the organ reduce the size and cavity, and at the same time aid in hastening the proliferation and expulsion of the broken down and necrosed material

Physiologically, this must be an aseptic process. If the pathological factor lies in the ferment or bacterial poisoning, how may this be introduced? Certainly from without If excluded from the air or any foreign body the uterus, even to its cervical portion, may be likened in its injuries to a sub cutaneous wound When not undergoing change from fermentation the lochial secretion remains a non irritant innocuous fluid, although swimming with broken down and even necrosed cellular debris From this standpoint of view we must take exception to the position assumed by Dr Thomas, above referred to, as well as many others, both in Europe and America

Dr Thomas states "that the lochia is in every case the offensive fluid, that it is made up of dead and decaying animal tissue " True, it contains dead, cast off tissue, and is always a highly albuminous fluid, just the material for the feeding, in their rapid growth, of micro-organisms, when accidentally introduced into this then most efficient incubating chamber Normally, they certainly are not present, and when absent decay or ferment cannot occur.

---

[1] Read in the Section on Obstetrics and Gynecology at the Thirty Sixth Annual Meeting of the American Medical Association
Boston Medical and Surgical Journal Feb 19 1885

Whence come the micro organisms, the ferment necessary as seed? Is it auto genetic, normally found in the parturient canal? If so, why does not every woman suffer in confinement from septicæmia?

Is it likely that of all organic functions, that upon which the continuance of the species depends and which is common to all animal life should, as Dr. Adams pertinently remarks, be the one which acts only under conditions tending to decay and death, that is to say, under conditions of disease? Micro-organisms are usually found in the vagina in health. Would this give us the seed for the sowing of the direful harvest? Evidently such belief pertains to most who have advocated, as preventive, vaginal injections both before and after the completion of labor. This appears to be the weak point in Dr. Thomas's position, and the almost only effective argument used by Dr. Barker against him in reply.

The history of the ages shows that the mortality of normal labor of the entire animal kingdom is very small. No one emphasizes the fact more clearly than Dr. Thomas that in all primal labors, at least, there are as a rule solutions of continuity usually both cervical, vaginal and perineal. In the normal labor the outflow for a few days is constant in current, the drainage of the vaginal canal is usually excellent, and yet this albuminous material, as found upon the napkin or external parts, is generally of a decided odor, and, when carefully examined microscopically, is found swimming with bacteria termo, these most useful of nature's scavengers, the omnipresent agents for taking to pieces and refitting for other uses albuminoid compounds. In this form of micro organism we surely rarely have danger, and when we consider the normal conditions present we readily see why we do not find these growths in the uterine cavity. Although I am as earnest an advocate for cleanliness as any other, this fact will explain why, amid filthy surroundings, the unwashed, unchanged, uncared-for woman so very generally makes a good convalescence. In a theoretical way it is possible for us to consider that the bacteria-termo of decomposition serve a useful end, by utilizing and exhausting the material otherwise efficient to feed an army of most dangerous enemies.

Dr. Thomas advises a careful disinfection, closing and sealing of all perineal and vaginal rents. Most excellent advice, and surgically very important, which we hope to see generally adopted, but, when we remember that he advocates this with the distinct object of lessening the danger, or obviating the cause of puerperal fever, we can but think he becomes unintentionally misleading, and in so far fails of his purpose, for we cannot believe that Dr. Thomas would teach that septic absorption from the injuries of the ostium vaginæ is the cause of puerperal fever. At the most, these are open wounds of tissues of comparatively little importance, and would certainly endanger the patient in a degree no greater than after operations for perineal restoration, and we do not suppose our distinguished friend would consider a general dangerous septic poisoning at all likely to supervene upon perineal repair.

The above argument would not hold good in laceration of the cervix, since this is the part of an organ which has undergone a most marked physiological change. The vascularization of the uterus and pelvis at term is extraordinary, the lymphatic system has become equally developed until the physiological state is one nearly akin to certain well recognized pathological conditions. However, it is not shown that puerperal fever is especially liable in primal labors, and yet it is generally accepted by all that cervical lacerations are far more frequent, in a certain degree rarely absent, in first confinements.

It would seem that even here something more is wanting than the initial lesions under ordinary conditions to induce the dreaded dangers incident to so-called puerperal fever. Careful cleanliness before and at labor should be enjoined, a strong antiseptic vaginal douche before delivery may be wisely advised. The circumfusa of the patient is by Dr. Thomas taken into account. A specially prepared room, with every surgical precaution, an aseptic atmosphere is emphasized and enjoined, even to wiping the furniture with carbolic or bichloric solutions. This is certainly safe, and of no very great consideration so far as expense or trouble is concerned. It is a consideration, however, unless really demanded, if we may not cause thereby serious foreboding and unnecessary nervous trepidation on the part of the patient. This would certainly not be required if the delivery was normal, and normal labor is accepted as an aseptic condition equivalent to a subcutaneous surgical operation.

Let us suppose the labor no longer remains normal, but that manipulative interference becomes necessary. Here the entire phase of the question is changed, and under these conditions I would emphasize the use of the most thorough antiseptic surgical precautions. Our proceedings are now subject, in large measure, to atmospheric exposure, and here we need an aseptic atmosphere. In home, as well as hospital, let its purification be enforced. I have for years in instrumental labors believed in and used the spray. It certainly can do no harm, it may be of the greatest value. Infinitely more important, however, is the aseptic state of the operator. If the physician has been attendant upon infectious diseases, he should take a bath, change his entire clothing, pay particular attention to his hair and beard, and scrub his hands and especially under the nails with 1–20 carbolic solution, or 1–1000 mercury bichloride. The same care must be used with instruments. In all cases where the placenta has been detached manually, let the uterine cavity be antiseptically treated, ergot given and the uterus kept in control until firmly contracted. Then iodoform may be wisely introduced into the vagina, and a compress applied externally, moistened by a reliable antiseptic solution.

Why are these precautions dogmatically asserted as arbitrary rules? Without especial review, simply because they are based upon the same general principles which govern in surgery. Then are puerperal poisonings and surgical poisonings essentially the same? Of this there can be little doubt. As I have insisted above, the bacteria of decomposition have nothing in probability of casual relation thereto. It is the round cell growth, the micrococcus, which is active here as in the septicæmia of wounds. The bacteria of decomposition do not readily reproduce in the blood of animals, and when injected therein rarely do more than serve as a more or less active chemical irritant. This is not true of the micrococcus. Under favorable conditions, which are so very general in the pregnant state, they effect lodgment, colonize with a rapidity entirely inconceivable. Such seed introduced into such a favorable soil must yield an abundant harvest.

The planting ground, however, is rarely the vagina, but is found in the uterine cavity. It is hard to conceive of an incubating chamber presenting more favorable conditions. The albuminous fluid furnishing abundant food, the heat point steadily maintained, open sinuses, lacerated vessels, denuded walls through which ramify an abundant network of lymphatic vessels, all furnish conditions for generation and absorption rarely equalled. Carried along with the lymphatic stream, they are distributed to neighboring and often distant organs. They not seldom form thrombi in the veins, and as such are carried into the circulation.

The micrococcal development is all the more dangerous, since it is accompanied by no marked odor, and I fear many have been and are accustomed to determine conditions by such imperfect and unsatisfactory methods. When once infected have we means within our power for remedying the evil? Here again the conditions are much the same as in surgical septicæmia. Washing out the uterus does not prevent the mischief already done to the neighboring tissues. Dr. Lusk most tersely and forcibly puts it as follows: "The douche, however, is not infallible. In cases where there has been inoculation of the round bacteria, they often invade the tissues beyond the original lesion, and it is of small avail to wash out the uterus when the victorious army has advanced far away from the point of attack. Washing the arm daily after vaccination does not prevent the development of vaccinia. Washing out the uterus after the pelvic tissues are infiltrated with septic microspores may cut off the reenforcements, but does not prevent the progress of puerpereal septicæmia. I would advise, therefore, not to continue the uterine douche in cases where the results of the first thorough injection furnish the evidence of its importance."

In my own experience I have treated the uterine cavity as I would an infected, suppurating, sloughy wound. I do not hesitate carefully to remove with blunt curette any irregular placental masses from the uterine cavity, and in a number of instances have applied thoroughly the liquified crystals of carbolic acid. This, I believe, may be safely used, since the acid coagulates the albuminoids and is thereby not readily absorbed, while it acts as a local stimulant to the surrounding tissues and makes them less absorbent. I have also often introduced a considerable quantity, fifteen to thirty grains of iodoform, within the uterine cavity and allowed it to remain.

The relation of erysipelas to puerperal fever has long been suspected, and was first advocated as cause in Boston. An unfortunate series of cases occurring in the practice of a brother physician, within the year, is worthy of notice. Following a case of erysipelas early in January, there supervened in his practice five fatal cases of puerperal fever, the last developed at about the tenth day, erysipelas following what seemed a slight abrasion in the middle line over the coccyx up the back, and then diffusing laterally, until it became general, and before death had extended over quite the larger portion of the body. I inoculated sterilized bulbs at the bed side with fluid taken with much care directly from within the cervical cavity. Micrococci in a pure culture were reproduced in rapid growths, and in appearance they could not be differentiated from the micrococci in the cultures from the blisters of erysipelas.

Too much importance has undoubtedly been placed upon the use of injections. We think Dr. Adams and others have shown that they are in normal labor at least of doubtful benefit, and are not seldom dangerous. The douches doubtless often carry the very infection for the destruction of which they are employed. Who of us have not seen the use of dirty unboiled water with serene composure, because, forsooth, a little of some doubtful antiseptic had been added thereto? Danger lies even in the hand of experts of world-wide fame. Under date of November 14, 1884, Dr. H. G. Bigelow writes me from Berlin that Schroder has lost three cases from intra-uterine injection; in the last case 1-1000 mercury bichloride was used. Dr. Adams pertinently remarks that one set of authorities advocate the use of one kind of syringe, and another, laying blame to the instrument instead of the method.

We have already attempted to show that in normal labor it is not required, while it is too plainly apparent that after the disease has developed and micrococcal poisoning has supervened the intra-uterine douche too often fails to secure the desired result. Earlier I believed differently, and gave much thought to the perfecting of a double soft rubber injection tube for this very purpose. Experience in Europe as well as in America, clearly teaches the great importance of the subject, and the salvation of lives in large numbers has undoubtedly followed the more or less general wise precautionary measures adopted.

Under date of March 25th, 1885, Dr. E. W. Cushing writes me from Berlin, "The acceptance of the germ theory is universal, and its application is most incredible in thoroughness. The habit of washing out the vagina after child-birth, in cases which give no evidence of infection, has been entirely given up in the well regulated German hospitals as unnecessary where proper care and cleanliness prevails, the washing both inside and outside being done with the utmost thoroughness *before*, not after parturition."

A better general understanding of the subject will aid in carrying on the good work. "I will show you my faith by my works," saith the apostle of old. One must understand the great underlying principles of antiseptic surgery, and accept them *in belief* in order to carry them wisely into effect. Let the facts be adduced and the reasons clearly shown for the innovations demanded, else they will be relegated to the systems and fashions of the fallacies in the medical art.

DETERMINING ERRORS OF REFRACTION BY DOUBLE IMAGES AND BY PARALLAX[1]

BY T. E. MURRELL, M.D.,

OF LITTLE ROCK, ARK.

By Double Images.—In studying the laws of refraction as applied to the eye, it occurred to me that two opposite peripheral beams of light in the pupil could be made available in determining the posterior focal point of the eye relatively to the bacillary layer of the retina. This can be easily accomplished by using a disc or card with two small perforations in it, large enough to give distinctness of vision, and close enough together for both to fall within the area of the pupil. In order to prevent lapping on the retina, it is necessary to use a point of light for observation, which should be about twenty feet distant from the observer. A pin hole in a card over a candle, lamp or gas flame, or over a window against the sky, or, better still, as the room does not have to be darkened, a small silver globe hung opposite to a single window opened towards the sky, gives the necessary point of light. In the toy stores are kept glass globes about two and a half inches in diameter, hollow, and brightly silvered inside, which give a very bright small surface when hung opposite to a window, distinctly visible from all parts of the room, that answer the purpose admirably. In emmetropia, with the accommodation in a state of rest, all the light that enters the eye through the pupil from a distant point is focused in a single point in the retina.

It does not matter through what part of the pupil any isolated ray may pass, it is converged to one and the same point in the retina as any and all other rays from the same source. Hence, if two slender beams from opposite margins of the pupil are caught and others excluded, they will meet in one point in the retina and give a single image. In emmetropia, therefore, in viewing a distant point of light through the double aperture, it appears single. In myopia, the two pencils cross in front of the retina and meet the bacillary layer at separate points, hence the point of light is seen as two points. In hyperopia, the two pencils of light reach the retina before meeting, and likewise give two distinct visual impressions of the distant point of light. The appearance is the same, whether for excessive or defective refraction, but they may be readily distinguished by slipping the edge of a card over one of the apertures, when, if myopia exist, the point of light corresponding to the aperture covered will disappear, but in hyperopia the opposite point will disappear, or, by holding a spherical lens before the eye, when the two points will approximate if it is a correcting lens, and separate more widely if not. The lens that blends the two points into one is the correcting glass for distant vision.

A space of one millimetre between the apertures in the disc causes a separation of the points of light at a distance of twenty feet, about sixteen millimetres for each dioptrie of abnormal refraction. By ascertaining, then, from the person under trial the apparent distance between the points of light, the degree of error can be approximated.

In astigmatism it is only necessary to revolve the disc before the eye so as to cross the different meridians of the cornea in order to ascertain which meridian, or meridians, is in fault. Spherical lenses can be used for finding the correcting number. When found, the cylinder, or sphero cylinder, should be put in the trial frame and the disc revolved, to see if there is a single point of light in all meridians; if so, correction is perfect. For convenience, I use a circular disc of blackened brass, which fits into the trial frame, so that it can be easily revolved, and the faulty meridians readily found. The most convenient size for the apertures is about one millimetre, and the distance between them one millimetre. In some cases, apertures of half a millimetre in diameter work best, especially in excessive ametropia, and in very small pupils.

I have worked out a number of cases of myopia, hyperopia and astigmatism by this method with, in most cases, the greatest ease, and chosen the correct glass from the trial case without other aid. The two apertures should always fall within the pupil, else it will lead to error. When both apertures are seen through, two circles appear to lap before the eye, and vision should be through the lapped portion.

Some persons are so awkward and unintelligent as to confuse the examiner, but they would prove equally troublesome by any other subjective method. Some preliminary instruction, therefore, becomes necessary, as in the use of other means. By this device an error of half a dioptric is easily detected.

Some time after I had been using the double aperture disc for solving ametropia, I, for the first time, came upon an account of Scheiner's experiment to demonstrate accommodation. The device he made use of was identical with the one here presented, but he only used it as an experiment to prove the accommodation of the eye, as it may still be practically applied in determining the punctum proximatum.

By Parallax.—If a single small aperture in a card be moved somewhat rapidly back and forth in a straight line across the pupil, at the same time that fixation is on some object twenty feet or more away, the object will appear motionless if the eye is emmetropic, but will seem to move if myopia or hyperopia should exist. In myopia, the object will appear to move in a direction with the card, while in hyperopia, the reverse is the case. In astigmatism, it is only necessary to move the card in a line corresponding with the faulty meridian, to determine the existence and kind of refractive error. The explanation of this parallax will be readily understood when the laws of projection are applied. Projection, as is well known, is from the retinal image through the nodal point of the eye. Since, therefore, all the light from any distant point that passes through the pupil in an emmetropic eye with accommodation in abeyance, is conveyed to a single point in the retina, it follows that all projection for every ray that enters the eye from that point will be in one line, hence the object will appear motionless, however much the different entering rays may be changed by moving the aperture In myopia, the focal point of the eye lies in front of the retina, and the pencils which enter the pupillary area cross here and separate before reaching the retina, so that when the small aperture is moved across the pupil, the retinal image will move in the opposite direction, projection being, for this reason, in the same direction

---

[1] Read in Section of Ophthalmology and Otology at the Thirty Sixth Annual Meeting of the American Medical Association.

In hyperopia, all the rays that pass through the pupil form a cone truncated at the retina, and each retinal point within this area will correspond with a like position in the pupil Hence, when the aperture admitting a small beam of light is moved across the pupil, the retinal image will move with it, but as the image travels in one direction the movement of projection will be in the opposite direction There fore, in hyperopia the object will appear to move in a direction opposite to that of the card

The amount of displacement of the object fixed upon twenty feet away is for each dioptrie of ametropia about sixteen millimetres per millimetre pupillary diameter So that, with the average sized pupil, the displacement becomes quite conspicuous, even in small errors This, therefore, is a very delicate test, being sensitive to an error of one-fourth of one dioptrie or less

Of course the same rules apply with reference to the necessity of paralyzing the accommodation as by any other other method The larger the pupil, the more sensitive the test If, in astigmatism, the card is moved in a meridian obliquely to the faulty meridian in the eye, the object will appear to move in the dian, or obliquely to the direction of the card In irregular astigmatism, the object will simply appear unsteady, or to jump in different directions

In using this test *by parallax*, the card or disc may be moved to and fro across the pupil by the party examined, but awkwardness on the part of many persons renders it important to use in astigmatism some mechanical device by which the movements of the aperture can be made uniform and in a line with any desired meridian I have had constructed a circular brass disc, blackened, to fit into the trial frames, having a movable centre piece regulated by stops, and in which is the aperture to look through, which can be easily revolved or oscillated by a touch of the finger The aperture should not exceed one millimetre in diameter

Either of these methods will often prove a great aid to other methods in determining not only the refraction of the eye, but in proving the correctness of the glass If, with the correcting lens before the eye, there are two points of light in any meridian by the one method, or a parallactic movement of any distant object by the other, the glass is not correct

The method by parallax is especially serviceable in high degrees of amblyopia, where the exact refraction can often be determined when vision is so low as to render the largest letters of the test type indefinable It is also useful in establishing the existence of amblyopia in those cases where the examiner is sometimes puzzled to know how much of the defect still not overcome is due to error in the glass, or how much to deficient perceptive power To determine at once the existence of any error of refraction the method by parallax is the simplest, surest and quickest of all methods, since a pin hole in a card and any distant object to fix on constitute all the appliances necessary for the examination I hope I am not to be understood as supplementing by these simple devices the use of the ophthalmoscope, test type or diagrams in the solution of ametropia Far from it I merely claim for them a usefulness that entitles them to a place in the specialist's trial case At least they possess the merit of simplicity, inexpensiveness, and strict conformity with scientific principles

---

A CASE OF HEREDITARY GLAUCOMA[1]

BY HERBERT HARLAN, M D,

OF BALTIMORE MD

That glaucoma is often hereditary, and that when hereditary, it tends to appear at an earlier age than common, was recognized by von Graefe as long ago as 1869,[2] but that the disease should appear in five successive generations before the age of 20, is, I think, worthy of record, and is my excuse for presenting to you the history of the otherwise sufficiently common case which follows

Case —C E B came to me from one of the towns on the eastern shore of Maryland, March 24 The patient was a timid, nervous, not very intelligent, but well developed girl of 17 years Her sight had been failing a little more than a month, and more rapidly the previous week For several nights had seen circles of colored light around the lamp The nearest approach to pain had been a sense of discomfort The eyeballs were prominent, the pupils slightly dilated, V O D $\frac{20}{100}$, V O S, $\frac{20}{100}$— Jaeger No 1 with each eye for a moment, but with marked discomfort T 1 + The ophthalmoscope revealed a whitish and deeply excavated optic nerve, vessels numerous, and veins dilated and tortuous, but there was no pulsation except on slight additional pressure Diagnosis, chronic glaucoma

Inquiry brought out the following family history Her mother, who accompanied her, is 49 years old, and absolutely blind Both anterior chambers are obliterated, and the pupils closed She states that at 19 her eyesight began gradually to waste away She saw halos around the lamp A year later had inflammation in the eyes which the doctors called cold, and treated with drops and blisters After a while, the eyes got better Then another attack of inflammation came on, and she has been blind ever since Never at any time was there much pain The mother's father lost his sight in the same way, beginning at the age of 18 This is also the history of the maternal great grandmother and great-great-grandfather I was unable to trace the family history further back, but from that given, there can be little doubt that chronic glaucoma has been transmitted in direct line for at least five generations, the age of onset being about the same A maternal uncle at 35 years had pain in his eyes and head, and in three years his sight was entirely gone A maternal aunt who saw perfectly till she was 18 years old, and never complained of pain, was suddenly found by the family to be blind She died three years later Two uncles and an aunt, all over 55 years of age, see well One cousin, now at a blind asylum, began to lose her sight at 16 Sight in her left eye was gone before it was found out The other slowly followed Never complained of pain Another cousin was operated on four years ago by an oculist of Baltimore One eye was removed altogether, and on the other an iridectomy was done, and with this she now sees

---

[1] Read in the Section of Ophthalmology and Otology, at the Thirty Sixth Annual Meeting of the American Medical Association

A f O XV, 3 page 228

For the case now under consideration I advised an iridectomy, and the following day, under the influence of muriate of cocaine, I performed the operation on both eyes, excising a large piece from the upper segment of the iris in each I used a lance-shaped knife, and although the patient was restless and fixation of the eyeball was exceedingly difficult, the operation was perfectly smooth Atropia was instilled, the eyes bandaged, and the patient put to bed Two days later, on examination with a candle, I found the right eye clear, but in the left the lens was hazy

To be brief, at the end of ten days, as a result of the operation in the right eye, all sense of discomfort was gone, $V = \frac{20}{20}$, comfortable Jaeger No 1, and the ophthalmoscope showed all the congestion of the fundus to have disappeared In the left I had a traumatic cataract, doubtless due to the operation, but just when or how caused I do not know The patient then had an attack of mumps, and was discharged from the hospital, and on April 13 was re-admitted and operated on for the removal of the opaque and murky lens From this last operation she made a good recovery, and six days after, on the day of leaving home to attend this meeting, the pupil was clear, there was no discomfort, and she readily counted fingers with the left eye

---

SUGGESTIONS ON SOME SYMPTOMS OF RENAL DISEASE, AND THEIR MANAGEMENT

BY CHARLES W PURDY, M D,

OF CHICAGO HON FELLOW OF ROYAL COLLEGE OF PHYSICIANS AND SURGEONS KINGSTON

I desire first to draw attention to the mode of action, and range of utility, of certain diuretic agents in the treatment of renal diseases This seems the more appropriate at this time, inasmuch as the widest difference of opinion exists among authors, as to the propriety of the general use of diuretics, in the treatment of nephritis, both in its acute and chronic forms Some are accustomed to rely largely on the use of these agents in the treatment of those diseases accompanied by albuminuria, while others, more notably Senator, of late condemn their use as altogether injurious It cannot of course be denied but that the indiscriminate use of diuretics is capable of doing harm in some cases, but this is equally true of most other medicines, and it only teaches us that they should be given with a definite purpose in view, and withheld in those cases where experience has taught that they are useless, or harmful

That diuretics not only do not always prove injurious, but in many cases prove highly beneficial in the treatment of albuminuria, has been testified to so frequently by those whose experience peculiarly fits them to judge intelligently, on this question, that it seems impossible to doubt the proposition that they have a definite range of utility It is my present purpose to point out some of the more obvious indications for the use of these agents in treating albuminuria, and to call attention to the special agent appropriate to each case, on pathological, physiological, and chemical grounds

First then, if the actual quantity of urine falls seriously below normal, we know from ample experience that the patient is subjected to very grave dangers and, that these dangers will be directly increased in proportion to the actual diminution in the quantity of urine secreted It is obvious that diuretics are imperatively demanded in such cases for at best we can only substitute the action of the kidneys, by that of the skin or bowels, for a short time, and that in a very imperfect manner It therefore becomes our duty to increase the secretion of urine in such cases by such agents as are most efficient, and at the same time the least embarrassing or injurious to the kidneys themselves In order to be able to accomplish this intelligently, we must study the cause of the diminution or suppression in each case

There are chiefly three pathological causes of diminution, or suppression of the urine met with in the course of renal disease First,—congestive inflammation of the glands, resulting in (a) blocking up of the secreting tubules with colloid matter, counteracting the blood pressure which causes filtration of the urine, and preventing the escape of the latter, (b) inflammatory changes in and around the glomerule, which interfere with the renal function, and prevent the secretion of the aqueous urine Such are the causes of anuria in all forms of acute Bright's disease, whether arising from cold, scarlatina, or pregnancy, *and which lead up to dropsy, and all those* secondary complications arising from retained urinary derivatives in the blood

Secondly, we have lowering of arterial pressure, which lessens the tension in the glomerule to a point where filtration of urine becomes diminished, or more rarely, altogether arrested Such conditions we find sometimes present in late stages of granular kidney, where the heart affection has outrun the renal, passing rapidly through the stages of hypertrophy, and dilatation, into fatty change (the legitimate result of hypertrophy if it lasts long enough) In the stage of collapse in cholera, we have the same lowered pressure, and suppression, while in mitral disease of the heart the same thing also occurs to a less extent, resulting in diminution, short of suppression of the urine

Thirdly, the secretory structure of the kidney may become so largely destroyed through disease, that sufficient of the gland does not remain intact to carry on the function of the organ as a whole, and the urine falls periodically, or constantly below normal This condition is met with in the last stages of atrophy of the organs from cirrhosis, or interstitial nephritis so called. New growths, and extensive emboli, may produce similar results.

Now, in the first case, where the secreting tubules of the organs are completely blocked up with colloid exudations, the obvious indications are to clear these away, before we can hope to reestablish the urinary secretion. How are we to accomplish this object? We know that albuminous substances are soluble in alkaline solutions, and we know that we are able to render the urine alkaline by the administration of certain neutral salts, as the acetate and citrate of potash. The indications are perfectly clear then, that these neutral salines are the agents *par excellence* to direct against the conditions named, *to wit*, acute nephritis. Once the urine is rendered alkaline the tube casts are dissolved, either completely, or to the extent that they are able to pass the narrow constructions at Henle's loops, and thus become washed out with the urine. I am not aware that any one has yet suggested, that the action of these neutral salts is largely a chemical one, and, through rendering the urine alkaline, effects a solution of the colloid plugs which block up the renal tubes. That such however is no mere theory, I have satisfied myself by observing the behavior of tube casts in urine rendered alkaline outside the body, where they are dissolved after a few hours' standing. Further testimony in the same direction is afforded by the fact, that tube casts are rarely found in alkaline urine, no matter what pathological condition of the kidneys exist at the time it be passed.

Experience has strongly confirmed the superior efficiency of these agents as diuretics in acute Bright's disease. Nearly all authors give them the preference in such cases. Thus Dr. Roberts, in his last edition writes: "in a considerable number of cases of acute Bright's disease, coming under my treatment early, I have obtained almost invariably the best results by the administration of citrate of potash. And *in no instance where the urine has been rendered alkaline*, in the first week of the complaint, have I observed the more severe uræmic symptoms, or secondary inflammations." The saline diuretics are probably the least of all stimulating to the renal epithelium, and consequently least irritating to the kidneys, which still further fits them for use in acute cases. In cases then of acute nephritis, attended by diminution or suppression of urine, the best results may confidently be expected from the administration of the citrate or acetate of potash, in sufficient doses to maintain the urine alkaline. I am aware of but one exception to this rule, namely, in the case of scarlatinal nephritis. In the latter case, in addition to the blocking up of the tubules, there is more inflammatory swelling of the Malpighian glomerule than in any other form of acute nephritis. The products of inflammation infiltrate the glomerule, producing a homogeneous swelled mass. Leeching the lumbar region, followed by fomentations and cathartics, are therefore demanded in these cases in addition to the saline diuretics, more urgently than in other forms of acute nephritis.

In the second class of cases, where the urine is diminished owing to lowering of arterial pressure, the indications are more obvious. Under such circumstances we may expect the best results to follow the use of heart tonics, as digitalis, convallaria majalis, adonis vernalis and strophanthin. In other words, we get the best results by treating the heart disease, upon which the renal complication depends.

In the third class of cases, where the urine is diminished as the result of destruction of large areas of the kidney structure, the remaining sound portions of the gland must be made to do the work of the entire organ. Certain fortunate circumstances favor us in such cases. First, the capability, unlike the heart and most other vital organs, of the kidneys of work far beyond the requirements of the system, so that a comparatively small portion of the organs may perform the function of the whole, if only the remaining portion be sound. Happily in these cases under consideration, the portion of the glands unencroached upon is usually normal, or nearly so. In these cases we must employ our most active diuretic measures, in order to stimulate the remaining portion of the kidneys, up to a point where a normal quantity of urine may be secreted, or rather as much as will permit the functions of life to proceed without interference if possible from a renal source. Digitalis, convallaria, and heart tonics are indicated as before, but in this case, to maintain the blood pressure *above* normal. With these measures are to be combined such agents as juniper, scoparium, and squill. Indeed such cases as these unfortunately leave us little room for choice of agents to be used; the urgency of the case demands all the resources we are capable of bringing to bear against renal inactivity.

With regard to the use of diuretics in the treatment of albuminuria, where the quantity of urine is normal, I am inclined to think with Senator, that their action is harmful, or at least unnecessary, and that they are best avoided.

The next point I desire to mention, is the value of high vascular pressure, as a diagnostic symptom of renal diseases. I say renal diseases purposely, as I quite recently came to know that it accompanies diabetes mellitus, as well as chronic Bright's disease, and hence, we have an additional reason for examining the urine, when the sphygmograph indicates high vascular pressure, as we are liable to find sugar in the urine in such cases, as we are albumin.

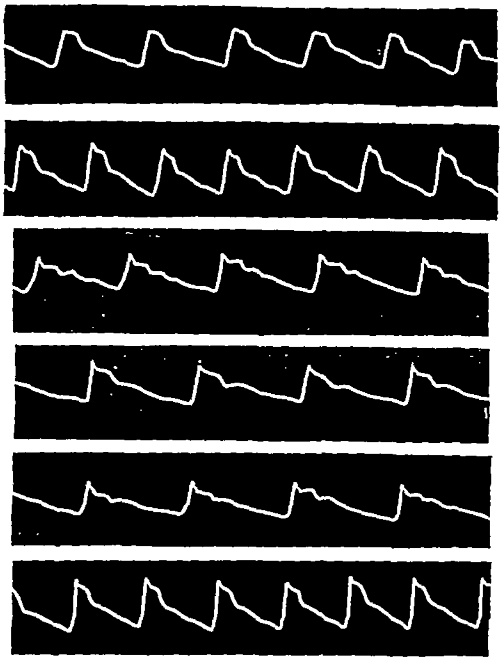
To the late Dr. Mahomed, of Guy's Hospital, we are indebted for first pointing out the constant coincidence of high arterial pressure, with chronic Bright's disease, and moreover, that it is an extremely early symptom of that disease, being very frequently present long before albumin makes its appearance in the urine. This symptom, as Dr. Mahomed showed, is not only valuable as a diagnostic, but also as a prognostic sign, as it points very strongly to chronicity of the disease. I have been in the habit of relying much on this sign of late, in making up my diagnosis of chronic Bright's disease in its early stages, but, as I have dwelt upon its characters, and value in these cases at considerable length in a recent publication,[1] I need not here repeat them.

With regard to high arterial pressure connected with diabetes mellitus, several very important questions at once arise, which the future may prove of practical value, as well as of considerable interest, both in an etiological and therapeutical point of view. Thus the constant hyperæmia of the liver pointed out by Dr. Pavy as accompanying diabetes, may bear a very important relation to the tension of the arterial system, which I have just spoken of as accompanying the same disease. The obstinate nature of coughs, and the insidious manner of approach of bronchial and pneumonic inflammation in diabetes, would seem clearer in its causal relations, if we take into consideration acccompanying high arterial pressure, and this suggestion appears in stronger light still by analogy, when we reflect on the similar tendency in chronic Bright's disease. The frequent appearance of albumin in the urine of diabetic patients, without marked lesions, is more readily explainable on the ground of exalted vascular pressure, as we have the same slight albuminuria in interstitial nephritis, as many think, from the increased blood pressure alone, since the renal lesions are so slight, or even apparently absent in the early stages.

---

[1] Chicago Medical Journal, May, 1885.

But the most practical and valuable results which may possibly be the outgrowth of high vascular pressure, if it shall prove, as I believe, that it constantly accompanies the diabetic condition, would be in the direction it may shape the therapeutics of the disease. Thus if high arterial pressure is closely associated with the cause of the disease, we may expect to derive benefit by a cathartic course of medicines, which lower the blood pressure. With regard to the cause of high arterial pressure of diabetes mellitus, my own investigations thus far only enable me to say that it is not due to the presence of sugar in the blood, as one would perhaps naturally suppose, for in three of my cases which were put upon successful treatment, causing a complete disappearance of sugar from the urine, in pathological quantities, the exalted vascular pressure continued uninfluenced. These facts would tend to show, that the cause lies deeper than the mere presence of sugar in the circulation, possibly it may underly certain conditions of the system from which spring in some cases diabetes mellitus, and in others, chronic Bright's disease, such as imperfect tissues metabolism. We have already referred to very similar phenomena which are quite common to both diseases, as chronic cough, slight albuminuria, and many others might be named, such as diarrhœal tendencies, the large amount of uric acid in the urine, the tendency to death by coma, etc., while moreover, both diseases are most prone to arise during the same periods of life, being most common between 30 and 60 years. I append below examples of pulse tracings from diabetic patients of mine, in which it will be observed, that the characters are exactly similar to those accompanying chronic Bright's disease' namely, those of high arterial pressure, and I may add, in the of course limited number of cases coming under my observation I have never found these absent in diabetes mellitus.



Lastly, I desire to refer to the question of uræmia, as this has always carried with it the deepest interest in the consideration of renal disease. In no field of scientific research, has persistent and indefatigable investigation been less rewarded by satisfactory results. It has defied successfully the fixation of its cause upon every single element of the urine, normal, and abnormal thus far, till practically we are not much wiser as to its etiology than were the first observers, who noted the appearance of its remarkable phenomena, as a constant result of suppression of the urinary secretion. It is true, we possess more knowledge of the various phases of its manifestations on the organism, and, moreover, we know something more as to its successful management, and anything that can add to the latter, is always of practical interest. For some time past (since the observations of Rommelaere, of Brussels) an impression has prevailed that the responsibility for the cause of uræmic manifestations, does not reside in any single element of the urinary excretion, but rather in several of these, if not indeed the whole compound. Quite recently Professor Bouchard, in a communication to the Société de Biologie, has pointed out that normal urine is very toxic, when injected into the veins, even in very small quantities (this has been denied by previous observers), and from a series of experiments he concludes that several poisonous alkaloids reside in several of the urinary constituents. These however have not yet been isolated, and consequently their antidotes have not been ascertained, so that we are not much nearer practical results in the management of the grave complications from this source.

That the cause of uræmia is a toxic one, is generally admitted, and all the facts go to confirm this assumption. That the toxic agent, or agents, either reside in the urinary constituents, or their derivatives, is evident from the fact that when the urinary secretion is retained in the system a sufficient length of time, the uræmic phenomena follow, and moreover, the latter subside on the reestablishment of the urine if it continues Now so far as the nervous system is concerned, this toxic influence seems to direct itself sometimes most intensely against the medulla and motor centres, and if sufficiently concentrated, tonic convulsions are the result In other cases the sensory tract of the brain suffers the most profoundly from the toxic influence, and death may result from coma, pure and simple

With our present knowledge, then, of the causes, nature, and effects of uræmic phenomena, what are the most effective agents we are able to bring to bear against this grave disturbance? With regard to the motor disturbances induced, the agents which have heretofore proven of the most service, have been chloroform, chloral hydrate, bromides, venesection, and (apparently) morphine[1] administered subcutaneously In this class of cases, I should in future be strongly inclined to make use of the calabar bean extract on physiological grounds I am not aware that it it has been used in such cases, but it would be interesting to know if practical results bear out its physiological indications The eclampsia of pregnancy should be its more legitimate field of curative action

While such agents as we have just named may sometimes control convulsions, and thus preserve life, yet, they all[2] have a limited range of action, influencing only the toxic effects on the brain and nervous system, while the poisonous influence pervades the system at large, and is equally liable to overcome some vital organ and cut life short It is evident, therefore, that such do not aim at the uræmia itself, but rather at its effects, and that only in a limited field What we yet require, is agents that will modify the toxic principle itself in the system, in other words, those which will act chemically, instead of physiologically, in order to modify or control uræmia in its totality So far as my own experience is concerned, the only remedy which has seemed to me to exercise such action to any appreciable extent, is the subcarbonate of iron Fortunately, this is a remedy peculiarly fitted on other grounds, for use in the vast majority of conditions associated with uræmia It was indeed the latter circumstance, that first led me to notice its influence over uræmic symptoms A patient having passed through uræmic convulsions, still exhibited threatening symptoms for more than a week after, notwithstanding the daily use of hot air baths, purgatives, and chloral hydrate Being very anæmic, I ordered the iron carbonate in full doses, and his uræmic symptoms subsided so rapidly that my attention was directed to the possible agency of the iron in the favorable result

My next trial of it was in the case of a patient suffering from granular kidneys, and marked hypertrophy of the heart, the result of nephritis in two successive pregnancies Living at some distance, the patient was only able to come to town about once a week On one of these visits, she was suffering from rather sharp uræmic manifestations, as severe headache, nausea, etc She was given iron subcarbonate in large doses, and directed to report, if not improved in two days She returned in a week stating that the headache, nausea and other unpleasant symptoms had promptly subsided on the use of the iron Unfortunately the subcarbonate was discontinued, and death by uræmia soon after followed. The less urgent manifestations of uræmia, such as occipital or frontal headache so common in these cases, I have repeatedly observed disappear (usually in a couple of days or sooner) under the use of the subcarbonate I shall attempt no further explanation of the *modus operandi* of the subcarbonate of iron in such cases than to suggest that it is probably chemical, in some way modifying the toxic agent in the blood, possibly by oxidation In my hands, the best results seem to follow very large doses of the subcarbonate (from 20 to 30 gms) repeated every two or three hours

We have said nothing thus far of the eliminative treatment of uræmia, or of the means of getting rid of the accumulation of the toxic matters through the natural channels of the system The results of these methods of treatment, have been so obviously beneficial, that there is little room for argument on the question Indeed, all treatment for uræmia must sooner or later converge to this point, if we hope for the machinery of the system to become capable of permanently freeing itself from clogging, without outside assistance The kidneys themselves being the natural outlets for these toxic elements, it is self-apparent that the best results will follow the free establishment of the urinary secretion After what I have already said in reference to diuretics in the beginning of this paper, it will be unnecessary to add more upon the subject here

The skin deserves special consideration, however, in this connection, as it is capable of being stimulated into very free eliminative action, under the influence of certain agents The most efficient of these are hot air baths and jaborandi, or the active principle of the latter, pilocarpin The most thorough action obtainable is by means of dry hot air, in preference to vapor baths, or wet packs, for the reasons that evaporation from the skin is vastly more rapid in dry than in moist air Of scarcely less importance is the fact, that the bodily temperature is by no means so much exalted by dry, as moist hot air, for obvious reasons One precaution is necessary in the use of all hot baths, either aqueous, or atmospheric If the symptoms of uræmia are very active, more especially as is often the case here, the temperature is elevated, to say 101° F , or over, the hot bath is apt often to precipitate convulsions, or, as I have likewise witnessed, active uræmic intoxication Under such circumstances then, it will be safer to establish free catharsis first, which will lessen the urgency of uræmic symptoms, and lower the temperature, after which, the hot baths are rendered both more safe, and efficient

---

[1] It may be justly questioned if we have a right to risk the use of morphine in the necessary doses to control tonic spasms since ample experience has shown the frequent dangerous effects of opium on the renal conditions which most commonly give rise to uræmia

[2] We may perhaps except venesection but unfortunately this is inadmissible in most renal diseases giving rise to uræmia.

Jaborandi in its action on the skin does not possess the above mentioned disadvantage, though it has some contra-indications which it is well to bear in mind It is frequently very depressing to the hearts action, producing marked prostration, and moreover, it is frequently quite irritating to the respiratory system The latter fact is deserving of the more importance in consequence of the fact that bronchial and pulmonary complications are peculiarly liable to arise during renal incompetency I have witnessed, as I believe, the comatose symptoms relieved by means of philocarpine injections, but only to hasten the actual development of previously threatened pneumonia, followed by death The use of jaborandi should be limited to cases which evince no bronchial, pulmonary, or cardiac tendencies, thus the eclampsia of pregnancy especially constitutes an appropriate field for its action

Finally, the intestinal tract is a peculiarly efficient avenue of escape for these toxic agents which give rise to uræmia, and one which is capable of being readily excited into the greatest activity This has been so long, and so well known, and so generally taken advantage of, that nothing seems necessary to be added in the way of lending force to the fact Something may however be suggested here, as to the most appropriate agents to be employed in special cases Elaterium has been the favorite agent employed heretofore, for the purpose of bringing about copious watery stools, and, in many respects it is admirably adapted for the purposes under consideration Not infrequently however, elaterium produces sharp irritation in the intestinal mucous tract, so much so that under some circumstances we hesitate to give it Unfortunately, also, in many renal diseases (most) leading to uræmia, the bowels are more or less the subject of irritation already existing Under such circumstances, it is desirable to use intestinal eliminants, which, while efficient in action, will not violently agravate existing irritation In such cases I have found the administration of the concentrated saline solutions, as recommended by Professor Mathew Hay, to meet the requirements quite satisfactorily Dr Hay found on investigating the action of salines, such as magnesia sulphate, and Rochelle salts, that if given in very concentrated solution, they bring away enormous quantities of fluid from the intestines, attended by but little intestinal irritation, and systemic disturbance The amount of drain from the blood of aqueous elements is very decided, carrying with it in solution the toxic agents productive of uræmia This drain is of course made good through ingoing fluids into the vessels, to equalize the volume of the blood, and hence that fluid is unloaded of much of the excrementitious waste contained therein The best results are obtained from the administration of half, to an ounce of magnesia sulphate, in about two ounces of water, given in the morning, after permitting no fluids to be taken during the night, nor must water or fluids be drank for a few hours after, lest they dilute the saline in the intestines, and defeat its action Dr Hay originally proposed this as a method of rapidly reducing dropsy, and local serous effusions, and I can testify to its efficiency in such cases also

There is one danger which it is well to have regard to in all eliminative treatment of uræmia under certain conditions, especially that of dropsy It is said that considerable quantities of those toxic agents become stored up in the dropsical fluids in the great cavities, and cellular tissues of the body, and that if the dropsy is rapidly reduced, through purgation, or other eliminative means, the toxic matters thus stored up are thrown suddenly into the circulation, and are liable thus to precipitate convulsions, or coma Dr Ralfe believes that this danger exists from the use of eliminants, even when dropsy is not present, owing to the concentration of the blood induced by their action I know of but one way to combat, or to lessen this danger, and that is to keep the blood diluted by copious draughts of water, while the eliminative measures are being carried out, and I believe this to be a very important consideration in such cases

163 State St

COCAINE IN DENTAL SURGERY[1]

BY JOHN S MARSHALL, M D,

OF CHICAGO ILL

The hydrochlorate of cocaine, like all new remedies which have promised to mitigate the sufferings of mankind, was hailed with enthusiasm, and in certain lines of practice it is already gaining a firm foothold as a local anæsthetic, principally in ophthalmology and in many operations upon mucous and serous tissues On the other hand, the subject has lost much of its interest to dental surgeons from the fact that it has proved a disappointment where it was hoped that it would be of the greatest benefit, viz as an anæsthetic or obtunder of sensitive dentine And now that the enthusiasm over the drug has waned, and we begin to investigate its claims with cooler heads and less biased judgment, many of the published accounts of its wonderful effects upon sensitive dentine and the other tissues of the teeth it would seem must have originated very largely in the imagination of the writers rather than that they were clinical facts

New forms of the drug have, however, been more recently introduced which promise better results, and my excuse for presenting this paper is to call your attention to the citrate of cocaine by presenting the results of a series of experiments made with the hydrochlorate, the oleate, and the citrate, leaving you to judge which promises to be of the greatest benefit as a local anæsthetic or obtunder of sensitive dentine For operations upon mucous tissues there seems to be but little difference between any of these forms, but upon sensitive dentine and pulp tissue it will be seen that the citrate in my hands proved much more satisfactory than either of the others

To illustrate the effects of these three forms I have chosen from my records the first ten cases upon which each of these remedies was tried

The Hydrochlorate or Muriate of Cocaine —

---

[1] Read in the Section of Dental and Oral Surgery at the Thirty Sixth Annual Meeting of the American Medical Association

$C_{17}H_{21}NO_4,HCl$ contains about 88 per cent alkaloid cocaine, and is made by neutralizing the alkaloid with HCl, using as little water as possible and evaporating until crystalization takes place When this remedy was first introduced as a local anæsthetic we had great hopes of it as an obtunder of sensitive dentine, but after repeated trials with a two per cent solution, my enthusiasm cooled, for in nearly every case it was more or less a failure This I attributed to the fact that a dense tissue, like dentine, absorbs so slowly that a sufficient quantity of a two per cent solution could not be taken up to produce anæsthesia, and therefore concluded that the solutions needed to be stronger To test this I procured ten per cent and twenty per cent solutions, but was unable to get any better results with the twenty per cent than with the two per cent A forty per cent solution has also been recommended This I have not tried, but from the experience of others who have experimented with it, it seems to have no advantage over a four per cent or ten per cent solution

Case 1 —Mrs Dr D , aged 30, just recovered from her third confinement Several large cavities to fill Teeth soft and very sensitive Applied a two per cent solution of hydrochlorate of cocaine (Foucar's) to two buccal cavities extending under the gum, the inferior left first and second molars The cavities were first dried and then painted with the solution In five minutes this was repeated, and at the end of ten minutes the rubber dam was applied without pain, and the cavities excavated with so little discomfort as to call forth expressions of delight from the patient

Case 2 —Willie S , a frail boy aged 15 years, a frequent sufferer from nervous sick headache, and obliged to give up study on this account Teeth soft and exquisitely sensitive, and from his nervous condition the operation nearly unbearable Applied the two per cent solution to a large crown cavity in the inferior right second molar, after four applications at five minute intervals could obtain no appreciable effect

Case 3 —Mrs A J L , age 24 years, in good health and nursing her first child, aged 9 months Teeth of medium structure and only normally sensitive Adjusted the rubber dam to the superior left second molar and applied the two per cent solution to a distal cavity three times at five minute intervals, but at the end of twenty minutes there was no diminution of sensation

Case 4 —Mrs L , aged 24 years Applied the two per cent solution to the necks of the inferior anterior teeth and gums, these teeth being affected with pyorrhea alveolaris After two applications at five minute intervals, the gums were completely anæsthetized, and I was able to operate with very little pain At a previous sitting, without the aid of the cocaine, the operation was exceedingly painful

Case 5 —Mr L E , aged 50 years Health fair Applied Merck's ten per cent solution for the extirpation of a living pulp, the rubber dam being previously adjusted and the pulp fully exposed, but after four applications at five minute intervals there was no abatement of sensation

Case 6 —Miss Celia D , domestic aged 26 years Health good and teeth of fair structure Applied Merck's ten per cent solution three times at five minute intervals to four cavities in the inferior left bicuspids, with very slight diminution of sensitiveness

Case 7 —Dr McG , a professional friend, aged 26 years Teeth strong and dense Made three applications of Merck's ten per cent solution at five minute intervals, to two large and sensitive cavities in the superior left first molar, but could get no favorable results, on drying the cavities with the hot-air blast was able to excavate with considerable mitigation of the pain

Case 8 —Master George L , aged 14 years Health not very good, suffers from headache on the least nervous excitement Teeth very soft The application of Merck's twenty per cent solution in the same manner and at the same intervals to several sensitive cavities seemed to afford a little relief The hot air blast was also used and seemed to afford still greater relief

Case 9 —Master Charles H , aged 16 years, and in fine health Teeth medium in structure Merck's twenty per cent solution was applied, as above, to several teeth at different sittings with only a very slight abatement of the sensitiveness The hot-air blast was also used in this case upon teeth which had been treated with the twenty per cent solution, and upon teeth which had not, and the sensitiveness was lessened just as much in those teeth where the hot-air blast was used alone, as where it was used in connection with the cocaine

Case 10 —Mrs L B M , aged 24 years Health good, teeth medium in structure Applied Merck's twenty per cent solution to two very sensitive cavities four times at five minute intervals, but with no perceptible benefit

Oleate of Cocaine —$C_{17}H_{21}NO_4,C_{18}H_{33}O_2$ Normal oleate of cocaine contains from forty eight to fifty-two per cent alkaloid cocaine, and is prepared similarly to the hydrochlorate, using oleic instead of hydrochloric acid Through the kindness of McKesson and Robbins, I was able to test the efficiency of the normal oleate and the five per cent manufactured by them

Case 1 —Annie O B , dispensary patient, aged 12 years Applied five per cent oleate to the gums for the extraction of an abscessed inferior right first molar Made three applications at three minute intervals Gum lost sensation in eight minutes, and the tooth was extracted at the expiration of twelve minutes Patient said "It hurt very badly"

Case 2 —Mr K , dispensary patient, aged 40 years Applied five per cent oleate to the gums for the extraction of the root of the superior right first bicuspid, which was the seat of an abscess, and very sore to the touch Made two applications at three minute intervals At the end of seven minutes the gums had lost sensation, and at ten minutes from the first application the tooth was extracted The patient declared the pain was considerable, but not as bad as he expected

Case 3 —Mr E F , Sr , aged 60 Teeth dense Attempted to extirpate a living pulp for this gentleman from the inferior left second bicuspid Applied the five per cent oleate twice at three minute intervals, at the expiration of ten minutes there was no anæsthetic effect Made a third application, and at thirty minutes—the pulp being bathed in the oleate all this time and moisture excluded by the rubber dam—there was no appreciable anæsthetic effect Then applied the normal oleate for fifteen minutes with no better success

Case 4—Mrs T H B, aged 30 years, and in the most perfect health Teeth medium Applied five per cent oleate to a crown cavity in the inferior right wisdom tooth Made three applications at five minute intervals, slight pain on making the first application At the expiration of twenty-five minutes there was no effect

Case 5—Mrs George A, Jr, aged 28 Health not very good Teeth soft Is a frequent sufferer from nervous head ache, and exceedingly nervous about dental operations Applied five per cent oleate to a very sensitive crown cavity in the inferior left second molar The dam was adjusted and the cavity bathed with the remedy, at the end of ten minutes no effect, at twenty minutes the same, at thirty minutes still no abatement of sensitiveness The normal oleate was then applied for ten minutes with no better result (Since recording the above I have tried the citrate upon another tooth for this patient, equally as sensitive as the one just mentioned, with entire success)

Case 6—Master Joe R, aged 11 years Teeth soft and very sensitive Applied five per cent oleate in the usual way to several cavities, and followed it with the hot-air blast, but was unable to completely obtund the sensitiveness (At still other sittings of a later date have used the citrate with entire success)

Case 7—Miss Margaret M, aged 14 years Highly nervous organization Teeth of fair structure, but exceedingly sensitive Applied five per cent oleate to two cavities four times at three minute intervals, with but very slight obtunding effect

Case 8—Mrs Anna B, aged 40 years Health good Applied the five per cent oleate to the gums preparatory to fitting the band for an artificial crown, upon the root of the superior left central incisor In fifteen minutes anæsthesia of the gum was perfect, but at the border of the alveolus, sensation was still acute, this I was unable to overcome after an hour's trial

Case 9—Miss J P, aged 35 years Health much impaired from long-standing uterine trouble All the teeth affected with pyorrhea alveolaris Applied five per cent oleate twice at five minute intervals, and in fifteen minutes was able to scrape the roots of the teeth and slit open the pockets with very little pain

Case 10—Mrs E B, aged 42 years Health good, teeth dense and only normally sensitive Two applications of the five per cent oleate at ten minute intervals diminished the sensitiveness, but it was not entirely overcome

Citrate of Cocaine—$(C_1\ H\ _1 NO_4)_n\ H_3 C_6 H_5 O$ Contains about eighty one per cent of alkaloid cocaine, and is made after the same process as the other forms, except that citric acid is used This form of cocaine was first manufactured and recommended by E Merck, of Darmstadt, as likely to be most satisfactory as a local anæsthetic for sensitive dentine My attention was first called to it by a letter in the Journal of the American Medical Association, written from Wiesbaden, Dec 4, 1884, by Dr Sarah Hackett Stevenson I at once took steps to procure a sample manufactured by Merck for experimentation, but was unable to obtain it in this country Messrs McKesson & Robbins, however, kindly prepared a sample for me, and this was made into pills, each containing one-fourth grain, the excipient used being gum tragacanth dissolved in glycerine This readily dissolves on being moistened with water, and therefore makes a very convenient vehicle for its introduction into the cavity The citrate does not keep well in solution as it decomposes in three or four days My method of using it is as follows Remove all loose debris from the cavity, wash it out with tepid water and apply the rubber dam Place in the cavity one-sixteenth or one-eighth grain of the citrate (divide a pill into two or four equal parts), according to the size of the cavity, and place over it a pledget of cotton, moistened with tepid water, the excipient soon dissolves and flows over the surface of the cavity In five minutes I test the dentine, and if still sensitive make a second or third application

Case 1—Miss Eva J B, aged 26 years Health good Teeth soft and very sensitive Applied one-sixteenth grain of the citrate to a distal cavity in the superior right lateral incisor Slight stinging pain on application, this subsided in about three minutes, in five minutes the tooth felt benumbed (as described by the patient), in ten minutes the cavity was excavated without the least pain The anæsthetic effect lasted for about one hour

Case 2—Miss N E C, aged 19 years Health fine Teeth of good structure but quite sensitive Patient has a great dread of dental operations Applied one-sixteenth grain of the citrate Slight pain on coming in contact with the dentine, this soon subsided, and in five minutes the sensitiveness was considerably lessened Made a second application of one-eighth grain, which was allowed to remain ten minutes, when sensitiveness had entirely disappeared, and the operation was completed without the slightest pain

Case 3—Mrs John J, Jr, aged 35 years An exceedingly nervous patient, and more or less an invalid for the last ten years Teeth soft Applied one eighth grain of the citrate to a superficial cavity on the mesial surface of the superior right first bicuspid Dentine exquisitely sensitive to heat, cold, acids, sugar, etc, and the least touch of the excavator caused intense pain, and throws the patient into a nervous tremor Severe pain followed the application of the citrate, which did not subside until twenty minutes afterwards Made a second application of one-eighth grain ten minutes after the first In twenty minutes from the first application was able to partially excavate the cavity, a third application of one sixteenth grain was then made, and in thirty minutes from the first was able to finish the operation The patient said the tooth was still sensensitive but endurable I had tried some weeks previously to excavate a cavity, under the effect of a Merck's twenty per cent solution, but failed to obtain any favorable results with it

Case 4—Miss C E N, aged 20 years Health good Teeth of fair structure Applied one-sixteenth grain of citrate to two sensitive proximal cavities in the superior left first and second bicuspids Slight pain on application, at the end of five minutes sensitiveness was entirely overcome in both, and the operation was completed without pain

Case 5—Mrs John B, aged 30 years, in fair health Removed the remnants of the pulp in the superior right first molar, which had resisted devitalization after three applications of arsenous acid The pulp was hypersensitive in all three roots In fifteen minutes after the application of one eighth grain of citrate, was able to remove the pulp without the least pain

Case 6—Miss Alice C, aged 16 years Health good Teeth soft Suffering severe odontalgia from exposed pulp in the inferior right first molar Applied one sixteenth grain citrate for the relief of the odontalgia, in five minutes made a second application, and in ten minutes a third, each time doubling the dose, but after a full half hour there was no mitigation of the pain Dressed with oil of cloves and one eighth grain morphia sulph, with the effect of controlling the pain in about five minutes

Case 7—Mr Henry C, aged 18 years, in poor health Teeth soft and very sensitive Applied one-sixteenth grain to a buccal cavity in the inferior left second molar Severe pain followed the application, which lasted about five minutes Made a second application of one-sixteenth grain, and in fifteen minutes excavated the cavity without pain

Case 8—Miss Anna P, aged 24 years Health good Teeth of dense structure Applied one sixteenth grain each to two buccal cavities in the superior right and left second molars Slight pain on application, which lasted about three minutes In ten minutes was able to operate without pain

Case 9—Miss Sophia N, aged 23 years Health good Teeth soft Applied one-sixteenth grain each to two mesial cavities in the superior right and left central incisors Very slight stinging pain on application At the expiration of fifteen minutes dentine still sensitive, made a second application of one sixteenth grain, and in thirty minutes the dentine was still slightly sensitive at the bottom of the cavities Operated with but little pain

Case 10—Mr J C S, aged 20 years Health good Teeth dense, and only normally sensitive Applied one-sixteenth grain each to several cavities, and in each of them one application was sufficient to completely obtund the dentine in from eight to ten minutes

Since recording the above cases I have had opportunity to more thoroughly test the merits of the citrate, and as an obtunder of sensitive dentine it has in my hands fulfilled in nearly every instance all that it gave promise of doing From the cases recorded you will notice 1 That it is much more reliable when applied to sensitive dentine than either hydrochlorate or oleate Whether this is due to the special form of the drug or to its greater concentration as applied to the dentine, I am unable to say 2 That it also seems to act more promptly, whether applied to sensitive dentine, pulp tissue, or mucous membrane, than either of the other forms 3 In every case, so far, in which I have used it for obtunding sensitive dentine, the citrate causes a more or less sharp, stinging sensation, being similar to that produced by the application of spunk or bibulous paper in drying the cavity, or of mild solutions of chloride of zinc, but this passes away in from two to five minutes Why the application of the citrate should produce pain I am unable to say, unless it is caused by the rapid absorption of the fluids contained in the dentinal tubuli, as the citrate and the glycerine excipient have strong affinities for water, or possibly the citric acid is not completely neutralized Why case 5, in which the citrate was applied for the removal of a pulp, should be so successful, and the next case, in which it was used for the relief of odontalgia, should prove such an utter failure, is to me also equally unaccountable

The record of such a small number of cases, apparently successful, does not of course prove the citrate to be a perfect local anæsthetic for operations upon the teeth, but I trust they will be useful in calling attention to this form of the drug, and stimulate others to further test its merits

242 Wabash Ave

MEDICAL PROGRESS

ANATOMY AND PHYSIOLOGY

Large Doses of *Ipecacuanha in Acute Pneumonia*—Large doses of ipecacuanha in acute pneumonia were much given at the commencement of this century, its antiphlogistic and depressing action being empirically recognized Trousseau, Péter, and other well-known physicians were aware of the good effect of these large doses Verardini's observations confirm the utility of this method of giving ipecacuanha The dose ranges from 2 grammes (30 grains) to 4, 6, or even 8 grammes These doses are well borne and rarely cause sickness, the tolerance of the drug is in relation with the gravity of the pneumonia This may be caused by a paralysis of certain nerve-centres, as Finkler and Zunt have shown The action of the ipecacuanha is to cause contraction of the blood vessels and capillaries Large doses of ipecacuanha have not the same effect as emetin, the first cause pulmonary ischæmia, while the second cause marked hyperæmia—*London Med Rec*, July, 1885

MATERIA MEDICA AND THERAPEUTICS

A New Method of Employing Bromide and Iodide of Potassium—The marked repugnance which the bromide and iodide of potassium provoke in many patients, in whom they are imperiously indicated for numerous affections of a rheumatic, gouty, nervous, scrofulous, and syphilitic nature, has led to various hitherto but partially successful efforts of freeing these valuable drugs from this objection. Epileptic patients, who have to take large doses of the bromide of potassium daily, often object to this treatment on account of the gastric irritation which the remedy produces. There are even syphilitic patients who prefer the consequences of their diathesis to the ingestion of the potassium salt, for which they express an indomitable antipathy. In women especially, in whom the exhibition of bromides is so often called for, the practitioner is occasionally confronted with the necessity of abandoning a positively useful drug for the sake of the subjective inconvenience it causes in the patient. Children, when being treated with bromides for cardiac affections, likewise show their disgust of the medicine very plainly.

Though a great number of preparations containing these drugs in a syrupy vehicle have been offered to the medical public, we find that the nauseating, syrupy taste is always objected to by the patients, and that the exact regulation of the dose is rendered somewhat difficult, as the spoon is sometimes more, sometimes less, accurately filled. In the light of these facts, it must be regarded a pharmalogical acquisition that MR. POISSON, a prominent French apothecary, had the happy thought of incorporating these salts with chocolate and presenting them in the form of pastilles (lozenges), containing each 3 grains of either drug (*Le Progres Medicale*, April 4, 1885). Ease of ingestion, even for the most delicate and fastidious patients, perfect preservation (they contain butter of cacao), ready solubility, and avoidance of all gastric irritation, are the striking features of the new preparation, which, we feel convinced, will rapidly rise in favor even in this country. It would possibly be advantageous to prepare also lozenges containing a higher percentage of the salts, as large doses of the drug are occasionally to be taken. In conclusion, we beg to recall that Cl. Bernard has long intimated that the absorption of both bromides and iodides would be essentially facilitated by the combined addition of fatty matters and sugar. Poisson's preparation, then, appears in perfect correspondence with Cl. Bernard's prescription.—*Therap. Gazette*, June, 1885.

DESSICATED OX-BLOOD.—The old popular belief in the medicinal virtues of a blood regimen has recently been resumed with considerable enthusiasm. In Paris, as we read lately in a secular journal, there are butcher-shops exclusively devoted to the preparation and instantaneous dispensation of this rather repulsive medicine. As efficient adjuvants to this cure, baths in the same menstruum are equally *en vogue*. From theoretical grounds, there would appear little doubt that this indirect transfusion of animal blood can exert a favorable impression upon a flagging or wasting constitution, though we fail to appreciate the utility of the blood bath. It is, then, little surprising that therapeutists, in just deference to the popularity of the remedy, have subjected it to clinical trials, and, having become convinced of its therapeutic value, do not hesitate to use it, though in a somewhat modified form.

GUERDER (*Deutsche med. Zeit.*, March 17, 1885) openly advocates the systematic administration of ox-blood powder, prepared so as not to remove the salts of the blood. Fresh defibrinated blood is heated for four or five hours in a water-bath, and then slowly dried by currents of warm air, the entire preparation covering a period of at least three days.

Guerder gave this blood-powder to fifty one sick and healthy individuals, and reports that it was well borne by forty-four of them. In three instances (reconvalescence from typhoid fever) he noted vomiting, and in four others (anæmia) gastric irritation.

Children usually are ordered 2 drachms, adults 6 drachms, of the powder, to be taken at meal time in cold liquids (water, wine, milk, black coffee).—*Therap. Gazette*, June, 1885.

MEDICINE

LIPOCARDIAC ASTHMA.—Under the name of "lipocardiac asthma," PROFESSOR CANTANI gives an account of the affection described by him since 1864 as "fatty heart asthma." The patient is perhaps quiet in bed or in an arm chair, when suddenly without any apparent reason, the rhythm of his respiratory movements is disturbed. Little by little, sometimes almost insensibly, his respirations become less frequent, shorter and more profound, amounting at times to a laborious and even stertorous dyspnœa. Gradually the respirations become more frequent and profound, returning by degrees to the normal. Such attacks are usually short in duration, severe attacks last only a few minutes, and mild attacks only about two or three minutes. At first the outbreaks are unfrequent—about once a month, or three or four in the course of the year, and then they follow fatigue, muscular efforts, or emotional disturbance. As time wears on, the attacks begin to recur at short intervals and without apparent cause.

The origin of these symptoms, according to the author, lies not in mere fatty hypertrophy of the heart, but in fatty degeneration of the muscular tissue of the organ. The symptoms show themselves when the heart begins to be tired. With this muscle, however, fatigue means impossibility to continue its work with its usual power. It requires, therefore, a brief period of relative repose, of less energetic contraction. This, however, involves a less complete emptying of the ventricles. Now, during this period of relative repose, of fatigue of the heart, the quantity of blood driven into the lungs by the right ventricle and to the rest of the body from the left ventricle is, for the time, diminished. Not merely, therefore, is there less blood oxygenated in the lungs, but the blood that is oxygenated is distributed more slowly throughout the body. This insufficient supply of blood to the tissues provokes a nervous erythism, or general hyperæsthesia.

The recognition of lipocardiac asthma is important, inasmuch as the prognosis is much more unfavorable than in any other kind of cardiac asthma. It must be distinguished from angina pectoris, with which it is apt to be confounded, and with which, in fact, it is rarely conjoined. Another disorder of respiration with which it might be confounded is Cheyne Stokes' respiration. Cheyne Stokes' respiration, however, is a symptom in various morbid states. It has a different significance. In it there is apnœa, in lipocardiac asthma, on the contrary, there is only dyspnœa. Cheyne Stokes' respiration occurs at brief intervals, and does not occur long before death. Lipocardiac asthma occurs at distant intervals, and may occur for many years before death.

The treatment of lipocardiac asthma consists in improving the general health of the patient. Against the symptoms, digitalis, convallaria, valerianate of quinine, caffein, cognac, red wine boiled with cannella, etc., may be useful. In fatty persons who are not too old ferruginous preparations may be tried.—*London Med. Record*, Aug. 15, 1885.

Dilatation of the Stomach in Children.—Dr. Comby, of Lyons (*Lyon Méd.*, No. 49, 1884), regards gastric dilatation due to dietetic errors as an affection of greater frequency than commonly believed. Though appearing most frequently in children fed artificially, especially if early accustomed to solid food, it is occasionally found in nursing children, and is then to be attributed to either excess in quantity or undue richness of the milk. The most prominent symptoms of the affection are inflation of the stomach, tympanitis, and a ringing noise (*bruits de clapotage*), as also found in adults.

Occasionally we find alongside of dyspeptic troubles nervous symptoms, such as convulsions, insomnia, and sometimes eczema and impetigo. Comby refers also to the coincidence of this affection with rachitis, though without regarding it as a rachitic symptom.

The prognosis is to be guarded, as the affection sometimes extends to puberty, and even longer. The treatment is to be of an exclusively dietetic nature. Artificial food is to be excluded, improper articles of diet to be banished, the weaning to be delayed, and strict general surveillance to be enforced. Washing out the stomach has, in some instances, proved advantageous.—*Therap. Gazette*, June, 1885.

Lactic Acid in Laryngeal Tuberculosis.—Dr. H. Krause, in following up the experimental application of lactic acid as pointed out by Mosetig-Moorhof, who has found its valuable in the local treatment of fungous caries, lupus vulgaris, superficial epithelioma, and papilloma, has made use of the remedy in the local treatment of laryngeal tuberculosis. The cases which he records had previously been under treatment, and a great variety of agents was used without beneficial result. Among the remedies used were iodoformized glycerine, boric acid, carbolic acid, and creasote either with morphia or cocaine.

The cases in which the pathological condition was treated are fourteen in number, and microscopic examination showed the presence of the bacillus tuberculosis in every instance. The results of the local application of the lactic acid were as follows: Hand in hand with the decrease of the infiltration and the scar of the ulcer a diminution of pain was noticed, and at the same time diminution of the secretion. The subjective result so far as the larynx is concerned is, that in all the patients, without exception, the condition was markedly improved.

Concerning the return and persistence of the cure after cessation of treatment nothing can be reported on account of the limited time covered by the observations. Dr. Krause considers, however, that the use of the acid is of certain efficacy in the treatment of this form of tuberculosis, and especially worthy of trial in the light of the failure hitherto experienced in the treatment of this affection of the larynx.

Even in cases in which, owing to far advanced pulmonary tuberculosis, and the general effects of the disease, only a most unfavorable prognosis could be given, the dysphagia accompanying the disease was much diminished by lessening perichondrial œdematous infiltration. The writer further does not hesitate to express a hope that in the least unfavorable cases in which laryngeal tuberculosis has not advanced too far, and the general constitution is well conserved, the use of lactic acid will render it possible to destroy the infiltrated tissue and effect the concurrent cure of the local process. The writer, in conclusion, also suggests the application of lactic acid in other diseases of the mucous membrane of the upper air-passages, among which may be mentioned the diffused swelling and circumscribed thickening accompanying chronic nasal pharyngeal and laryngeal catarrh.—*Berliner klin. Wochenschr.*, July 21, 1885.—*Medical News*, Aug. 22, 1885.

Glycerine as a Prophylactic against Trichinosis.—In the *Archiv für Kl. Med.*, Bd. 36, 1885, is a very striking illustration of the prophylactic value of glycerine against trichinosis, which, though denied by Fiedler, has been previously upheld by Heller (*Riemssen's Hanb. d. Pathol. u. Ther.*, Bd. iii, S. 404).

A travelling merchant, who had taken some ham with him from home, was suddenly advised by a telegram that the ham contained trichinæ, which was positively verified by a physician to whom he presented the ham for examination. Having, however, previously eaten of the ham, he entered a hospital for treatment. His diet was restricted to a minimum, and he was given first 10 ounces of infusum fol. sennæ comp. in combination (which removed some uncapsulated trichinæ), and was then placed on a glycerine treatment, a teaspoonful to be taken hourly for several days. He completely escaped all symptoms of trichinosis, while nearly all his relations at home, who had also eaten from the same ham, contracted serious illness.—*Therap. Gazette*, June, 1885.

SURGERY.

Experiments on Engrafted Bone.—Dr. Ambrogio Ferrari, after a series of experiments on the phenomena attending the engrafting of bone, draws the following conclusions:

1. Pieces of bone engrafted into the shaft of a long bone become completely united and continue to live.
2. They not only continue to live, but also grow.
3. That these results follow without reference to the position in which the engrafted bone is placed.
4. The reunion of grafts occurs by a true vascularization which takes place between the engrafted bone and that into which it is introduced.

5 That a bony callus, periosteum, and medulla are formed in relation with the engrafted bone

6 That this callus possesses a temporary vitality, as in fracture

7 That after a certain time the callus, periosteum, and medulla are absorbed, and the engrafted bone is nourished only by a greater vascularization

8 That grafting occurs more completely if the inserted bone is in exact adaptation with the margins of the bone receiving it While this observation is not verified, in a case where the opposite condition existed, a longer time was necessary for union to take place

9 The most complete and careful antisepsis is required in order that complete union of the engrafted bone may occur

10 The engrafting of several pieces of bone is completely successful

11 That in case of engrafting of several pieces of bone with partial suppuration, union of some of the pieces may take place, provided suppuration does not extend to that portion of the engrafted bone in *communication with the medulla*

12 Besides antiseptic precautions, compression is required to maintain contact between the medulla and the pieces of bone engrafted, in order to obtain a successful result —*Gazzetta degli Ospitali*, July 22, 1885

DIAGNOSIS OF CHANCRE OF THE TONSIL —DR FRANK DONALDSON, Jr , gives the diagnosis of chancre of the tonsil as follows

SYPHILIS	CANCER
Functional Symptoms	*Functional Symptoms*
Deglutition and swallowing painful, but rarely impossible, with freedom from pain when the parts are at rest	Difficulty and pain in swallowing the first and constant symptom, increasing until it is impossible to take food Lancinating pain referred to the ear
Physical Signs	*Physical Signs*
Some hypertrophy with early superficial ulceration in primary sore The tertiary ulcer perforating and cone shaped Comparatively slight glandular enlargement, not painful, and subsides with the cause of the irritation	Great hypertrophy, later wide spread ulceration Considerable glandular enlargement and induration, which become very painful, and do not disappear
Hemorrhage rare	Hemorrhage frequent
Slight emaciation	Great emaciation
Amenable to treatment	Not cured by any treatment

Tonsil chancre may, under some circumstances, be taken for a mucous patch, whose favorite seat would seem to be upon the surface of the tonsil, and this is more likely to happen when the patient is seen for the first time, and secondary symptoms have already manifested themselves, and an ulcer still remains upon the tonsil, or when there is hypertrophy of the tonsil, with an active, and by no means superficial, ulceration of the mucous patch The mucous patch, however, always follows the roseola, and the patch is, as a rule, superficial and of characteristic appearance, etc To determine finally between a chancre and a mucous patch upon the tonsil Diday says "Cauterize the ulcer twice at an interval of five days, and if it is a secondary ulcer, it will disappear, if a primary, hard chancre, it will not"

In exceptional cases chancre of the tonsil is complicated by an extensive slough The presence of a grayish ulcer, surrounded by an œdematous circle, with inflammation of the surrounding parts, points strongly to a gangrenous throat affection, either of a syphilitic origin or a primary gangrenous angina, such as is described by Gubler and Trousseau The limitation of the ecchymotic spots, and the absence of its propagation to the pharynx, palate, and larynx, and the general course of the affection, with the appearance or non appearance of secondary eruption, will settle the diagnosis

Ulcerating, gummy tumor of the tonsil is distinguished from chancre by a deeper ulceration, and by its dug-out edges According to Legendre, a good differential sign is the existence of an erythema and peripheral engorgement, which are never found in gummy tumors, but always present in throat chancre Further, a knowledge of the patient's antecedents will be of great value

Finally if the lesion upon the tonsil has been of slow unilateral development, is superficial, with grayish white deposit, if there is a history, or even suspicion of syphilitic exposure, if there is glandular enlargement, if the sore on the tonsil appeared from fifteen days to three weeks after exposure, and there is absence of chancre elsewhere, if the patient has not been subject to simple tonsillar angina, if the pain is on the affected side, has lasted for some days or weeks, and has not excited febrile reaction, and the whole is followed in due time by an outbreak of secondary symptoms, certainly we are justified in a diagnosis of chancre of the tonsil —*Medical News*, Aug 15, 1885

PEAT-MOSS AS A DRESSING —In the *Vratch*, No 24, 1885, p 389, DR VASILY E NESHEL, of the Obukhovsky Hospital, in St Petersburg, drawn attention to dry peat-moss as an excellent and cheap absorbent and dressing material, and fully endorses the statements of Leisrink (who first began to use it), Mielk, Korach, Hagedorn, and Schede It costs only 50 copeks per *pud* (about one shilling per 16 3 kilogrammes), may be gathered everywhere, and does not require any other previous treatment except picking out any foreign admixture (such as small twigs, leaves, etc), occasional moistening with a solution of corrosive sublimate, and drying Peat-moss in employed in the share of gauze bags or pads of various sizes The wound is covered first with a piece of iodoform gauze, then with a layer of sublimatised gauze, and over the latter a gauze bag filled with moss and slightly moistened with a carbolic or sublimatised solution, is laid, the whole being kept in place by a roll bandage Wounds remain perfectly dry under a moss bag The latter is found to be odorless six, eight, and more days, even in presence of very profuse purulent discharge Any fluid absorbed by moss rapidly evaporates To prevent overdrying, it is advisable from time to time to moisten the moss bag lying on the wound with an antiseptic solution —*London Med Rec* , Aug 15, 1885

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

The Editor of this Journal would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

Subscription Price, Including Postage
Per Annum, in Advance $5 00
Single Copies 10 cents

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order, drawn to the order of the under signed When neither is accessible remittances may be made at the risk of the publishers, by forwarding in registered letters

Address
Journal of the American Medical Association,
No 65 Randolph Street
Chicago Illinois

SATURDAY, SEPTEMBER 12, 1885

SUBCUTANEOUS SECTION OF THE LIGAMENTS IN CLUB FOOT

In September, 1882, M Jules Guerin presented to the Académie de Médecine a short note on "Partial or Total Ablation of the Tarsal and Metatarsal Bones in the Treatment of Congenital Club Foot,' and most surgeons will remember the fierce discussion to which it gave rise at the time, some claiming that the proposed operation offered only an infirmity for a deformity Nevertheless, some of the Academicians upheld him in his claim that the operation might be very beneficial in the cases in which he thought it indicated

M Guérin again brought up the subject at the meeting of the Académie on August 18, calling attention to the fact that in those cases which, on account of great deformity, age, or complexity, resist the ordinary means of subcutaneous tenotomy, manipulations and apparatus, there is a fourth means which may entirely correct the trouble This consists in subcutaneous section of the ligaments of the foot (tarso metatarsal), or, as he terms it, syndesmotomy

The ligaments to be divided in these cases are the inferior calcaneo cuboid ligament in extreme plantar equinus, in irreducible varus equinus, the internal lateral ligament of the tibio-tarsal articulation, the internal calcaneo scaphoid, and the ligaments uniting the scaphoid and cuneiform bones Guérin claims that with this complementary operation he has not seen a single case of club foot in more than a thousand which was not remediable—the other means being of course used after the operation The danger from the operation is very slight, and if proper precautions be taken to avoid the blood-vessels and nerves there is, we may say, no danger The wound always cicatrizes immediately, and without suppuration At the same time, there are certain precautions which should be adopted, in the way of making the incision at some distance from the ligament to be divided, and, if possible, at the base of a fold of the of the skin, closing the wound after the blood and other fluids have been carefully removed, and abstaining from efforts at redressment until cicatrization has taken place, and then only to make the manipulations gradually and slowly

This operation was first brought before the profession by M Guérin in 1840, and it would seem that his successes with it since that time would be sufficient evidence of its value In October, 1884, he operated on a case of extreme equino-varus, for which an ineffectual operation had been performed five years previously, when the patient was nine years old He divided the tendo Achillis in two places, above and below the old cicatrix, both tibial tendons, the tendon of the abductor pollicis, and then divided the internal lateral ligament, and the calcaneo-scaphoid and scaphoido cuboidean ligaments The operation was a complete success in every respect

In the discussion which followed, M Bouley said that he had been astonished that this operation was not more often performed, and he thought it unquestionable that it was a most useful complementary operation to the orthopædic surgery of the foot

ORGANIZATION OF THE NINTH INTERNATIONAL CONGRESS

In another part of the present number of the Journal, will be found so much of the proceedings of the Committee of Arrangements at its meeting in New York, on the 3d and 4th inst, as relates to the rules finally adopted for the preliminary organization and government of the Congress, including the General Officers, the Presidents of the Sections, and the Executive Committee, to which is committed all further management of the affairs of the Congress

It will be seen that the first rule opens the doors of the Congress to all members of the regular profession of medicine in this and other countries, with no restrictions other than the simple inscription of their names on the register, and taking out of tickets of admission That the General Officers selected and the Presidents of Sections, are not only men of eminence in the different departments of medicine in this country, but also fairly representative of the profession of the United States, as distinguished from a few chief centres, must be admitted by all candid or unprejudiced men That they collectively constitute an Executive Committee to which can be safely entrusted the entire management of the Congress, there can be no question, yet authority is given to add a limited number of such eminent men as may be found willing to give their personal assistance in carrying on the important work devolved upon the Committee under the rules now adopted

May we not hope, therefore, that a spirit of harmony will be fostered, and that all who hold the honor and interests of the profession above all personal considerations will cease to discuss the past, and cordially co-operate in making the International Congress of 1887 an honor to our country and a benefit to the profession of the world

SHOULD ARSENIC BE ADMINISTERED TO NURSING WOMEN?

At a recent meeting of the Société de Medecine Légale, in Paris, M Brouardel reported a very interesting case bearing upon this question He was called upon to say whether an infant of twelve months could be poisoned by the milk of its mother when she had taken a considerable quantity of arsenic

In the case in question, a man who had had some trouble with his wife and mother in-law was suspected of having given arsenic to them Both were made ill, and the child died with symptoms of cholerine a few days afterwards As the weather was quite warm, however, it was not suspected that the death of the child was due to any other cause than a severe case of summer diarrhœa But when the wife and mother-in-law were again attacked, with the same severe symptoms, in November, the husband was suspected, and the wife claimed to have found a package containing a white powder in her husband's pocket

The case being then submitted to Brouardel, he exhumed the body of the child, which had been buried six months previously It was completely transformed into adipocere, so that it was impossible to separate the viscera from the other parts It was therefore subjected to analysis *en bloc* It weighed about 2 50 kilogrammes, and contained 5 milligrammes of arsenic It was impossible that this arsenic could have been derived from the cloths enveloping the cadaver or from the soil in the vicinity of the grave

The next question was to determine whether arsenic is eliminated by the milk, and in what proportions M Gabriel Bouchet, for this purpose, administered Fowler's solution, in doses of gtt ij—xij, to a number of the wet-nurses, and found that the milk afterwards contained a proportionately large quantity of arsenic When, for example, the woman had taken 8 milligrammes of arsenic for six days, 100 grammes of milk contained 1 milligramme of arsenic With these doses of Fowler's solution neither the nurses nor the children felt any bad effects from the experiments In order to determine whether the effects would have been the same had the arsenic been administered in one large dose, experiments were made on animals The results were not very conclusive, however, as the susceptibility of animals to arsenic is very variable But it was conclusively shown that arsenic is constantly eliminated by the lacteal glands, whence it seems that it should not be administered to nursing women—or only with the greatest care

From a medico legal point of view it is interesting to note that Brouardel reported to the court that the body of the infant contained a quantity of arsenic sufficient to have caused the death of a child one year old, and that this arsenic could have entered the body of the child only through the mother's milk There was no defense, and the husband was sentenced to twenty years imprisonment at hard labor

ASSOCIATION ITEMS

REPORT OF THE COMMITTEE APPOINTED TO ARRANGE FOR THE MEETING OF THE INTERNATIONAL MEDICAL CONGRESS IN AMERICA, IN 1887

At the regular annual meeting of the American Medical Association, held in New Orleans, in April, 1885, the following resolutions were adopted

1 "*Resolved*, That the Committee appointed by this Association, to arrange for the meeting of the International Medical Congress in America, in 1887, be enlarged by the addition of thirty eight members, one from each State and Territory, the District of Columbia the Army, Navy, and Marine Hospital Service, to be appointed by the Chairman at this meeting, and that the Committee, thus enlarged, shall proceed at once to review, alter, and amend the motions of the present Committee as it may deem best"

(This resolution was amended by the provision, "that the members of the Committee should be selected by the respective State delegations")

2 "*Resolved*, That the Committee appointed in pursuance of a resolution adopted by this Association, April 30, 1885, to constitute an addition to the original Committee of eight previously appointed to invite and make arrangements for the meeting of the International Medical Congress, to be held in Washington, D C, in 1887, be, and the said Committee is, hereby authorized and empowered to select a Chairman and a Secretary, and to fill all vacancies that may occur by death or inability to attend in the Committee, and to appoint the officers of the Congress"

The following is a list of the Committee enlarged in accordance with the first resolution as amended

W E Anthony, M D, Providence, R I
G Baird, M D, Wheeling, W Va
Robert Battey, M D, Rome, Ga

F W Beard, M D , Vincennes, Ind
*J S Billings, M D , U S Army, Washington, D C
*J M Browne, M D , U S Navy, Washington, D C
L P Bush, M D , Wilmington, Del
H F Campbell, M D , Augusta, Ga
R Beverly Cole, M D , San Francisco, Cal
E P Cook, M D , Mendota, Ill
W C Dabney, M D , Charlottesville, Va
Charles Dennison, M D , Denver, Col
W E Duncan, M D , Ellendale, Dakota Ter
J W Dupree, M D , Baton Rouge, La
Ellsworth Eliot, M D , New York City
*G J Engelmann, M D , St Louis, Mo
N F Essig, M D , Plattsburg, Mo
Austin Flint, M D , LL D , New York City
E P Frazer, M D , Portland, Oregon
George F French, M D , Minneapolis, Minn
A Y P Garnett, M D , Washington, D C
S C Gordon, M D , Portland, Me
J W S Gouley, M D , New York City
F M Gunnell, M D , U S Navy, Washington, D C
John B Hamilton, M D , U S Marine Hospital Service, Washington, D C
*I M Hays, M D , Philadelphia, Pa
*C Johnston, M D , Baltimore, Md
George A Ketchum, M D , Mobile, Ala.
R A Kinloch, M D , Charleston, S Ca
D A Linthicum, M D , Helena, Ark
John S Lynch, M D , Baltimore, Md
J J McAchran, M D , Laramie City, Wyom Ter
J W McLaughlin, M D , Austin, Texas
R C Moore, M D , Omaha, Neb
Robert Murray, M D , U S Army, Washington, D C
R D Murray, M D , Moultrie, Fla
J W Parsons, M D , Portsmouth, N H
William Pierson, M D , Orange, N J
N J Pitman, M D , Tarboro, N Ca
*L A Sayre, M D , New York City
X C Scott, M D , Cleveland, O
*Nicholas Senn, M D, Milwaukee, Wis
John V Shoemaker, M D , Philadelphia, Pa
F I Sim, M D , Memphis, Tenn
A R Smart, M D , Hudson, Mich
D W Stormont, M D , Topeka, Kan
J M Taylor, M D , Corinth, Miss
E F Upham, M D , West Randolph, Vt
W H Wathen, M D , Louisville, Ky
W Watson, M D , Dubuque, Iowa
W C Wile, M D , Sandy Hook, Conn
A H Wilson, M D , Boston, Mass

At an informal meeting of the Committee, held at New Orleans during the session of the American Medical Association, in April, 1885, Dr R Beverly Cole, of San Francisco, Cal , was elected temporary Chairman, and Dr John V Shoemaker, of Philadelphia, Pa , was elected temporary Secretary

The Committee held its first regular meeting at Chicago, Ill , on June 24th and June 25th, 1885, for the purposes of organization and the transaction of the business committed to it by the American Medical Association

In order to facilitate the holding of meetings in different sections of the country, the Committee deemed it advisable to select a Vice Chairman, in addition to a Chairman and a Secretary

The following named members were present at the meeting held in Chicago

G Baird, M D , Wheeling, W Va
Robert Battey, M D , Rome, Ga
F W Beard, M D , Vincennes, Ind
*J S Billings, M D , Washington, D C
R Beverly Cole, M D , San Francisco, Cal
L P Cook, M D , Mendota, Ill
W E Duncan, M D , Ellendale, Dakota Ter
Ellsworth Eliot, M D , New York City
N F Essig, M D , Plattsburg, Mo
G F French, M D , Minneapolis, Minn
A Y P Garnett, M D , Washington, D C
John B Hamilton, M D , Washington, D C
*I M Hays, M D , Philadelphia, Pa
George A Ketchum, M D , Mobile, Ala
D A Linthicum, M D , Helena, Ark
John L Lynch, M D , Baltimore Md
J W McLaughlin, M D , Austin, Texas
X C Scott, M D , Cleveland, O
*Nicholas Senn, M D , Milwaukee, Wis
John V Shoemaker, M D , Philadelphia, Pa
F L Sim, M D , Memphis, Tenn
A R Smart, M D , Hudson, Mich
D W Stormont, M D , Topeka, Kan
E F Upham, M D , West Randolph, N Y
W H Wathen, M D , Louisville, Ky
W Watson, M D , Dubuque, Iowa
A H Wilson, M D , Boston, Mass

The resignation of Dr Austin Flint, of New York, as a member of the Committee, was presented and accepted Dr J W S Gouley, of New York, was elected to fill the vacancy, and took his seat with the Committee

The Committee then organized, a majority of its members being present, by the election of the following officers

Chairman, Dr R Beverly Cole, San Francisco Cal
Vice-Chairman, Dr John S Lynch, Baltimore, Md
Secretary, Dr John V Shoemaker, Philadelphia, Pa

After the organization of the Committee, the number of members necessary for a quorum for future meetings was fixed at fifteen

The following preamble and resolution were adopted, to apply to future meetings of the Committee

> "*Whereas* —It is expedient that the meetings of this Committee shall represent, as far as practicable, the profession of all portions of our country
>
> "*Resolved* —That any member of this Committee who may be unable to attend a meeting, shall be empowered to send as his proxy for the meeting any member of the American Medical Association, in good professional standing and a resident of his State or a member of his Government Department "

In the course of the meeting in Chicago, on June 24th, and 25th, 1885, a plan of organization of the Congress was adopted, certain officers of the Congress were appointed, in accordance with the instruclectively constitute an Executive Committee to which can be safely entrusted the entire management of the Congress, there can be no question, yet authority is given to add a limited number of such eminent men as may be found willing to give their personal assistance in carrying on the important work devolved upon the Committee under the rules now adopted

---

*Resigned

*Resigned

May we not hope, therefore, that a spirit of harmony will be fostered, and that all who hold the honor and interests of the profession above all personal considerations will cease to discuss the past, and cordially co-operate in making the International Congress of 1887 an honor to our country and a benefit to the profession of the world

SHOULD ARSENIC BE ADMINISTERED TO NURSING WOMEN?

At a recent meeting of the Société de Medecine Légale, in Paris, M BROUARDEL reported a very interesting case bearing upon this question He was called upon to say whether an infant of twelve months could be poisoned by the milk of its mother when she had taken a considerable quantity of arsenic

In the case in question, a man who had had some trouble with his wife and mother in law was suspected of having given arsenic to them Both were made ill, and the child died with symptoms of cholerine a few days afterwards As the weather was quite warm, however, it was not suspected that the death of the child was due to any other cause than a severe case of summer diarrhœa But when the wife and mother-in-law were again attacked, with the same severe symptoms, in November, the husband was suspected, and the wife claimed to have found a package containing a white powder in her husband's pocket

The case being then submitted to Brouardel, he exhumed the body of the child, which had been buried six months previously It was completely transformed into adipocere, so that it was impossible to separate the viscera from the other parts It was therefore subjected to analysis *en bloc* It weighed about 2 50 kilogrammes, and contained 5 milligrammes of arsenic It was impossible that this arsenic could have been derived from the cloths enveloping the cadaver or from the soil in the vicinity of the grave

The next question was to determine whether arsenic is eliminated by the milk, and in what proportions M Gabriel Bouchet, for this purpose, administered Fowler's solution, in doses of gtt ij—xij, to a number of the wet-nurses, and found that the milk afterwards contained a proportionately large quantity of arsenic When, for example, the woman had taken 8 milligrammes of arsenic for six days, 100 grammes of milk contained 1 milligramme of arsenic With these doses of Fowler's solution neither the nurses nor the children felt any bad effects from the experiments In order to determine whether the effects would have been the same had the arsenic been administered in one large dose, experiments were made on animals The results were not very conclusive, however, as the susceptibility of animals to arsenic is very variable But it was conclusively shown that arsenic is constantly eliminated by the lacteal glands, whence it seems that it should not be administered to nursing women—or only with the greatest care

From a medico legal point of view it is interesting to note that Brouardel reported to the court that the body of the infant contained a quantity of arsenic sufficient to have caused the death of a child one year old, and that this arsenic could have entered the body of the child only through the mother's milk There was no defense, and the husband was sentenced to twenty years imprisonment at hard labor

ASSOCIATION ITEMS

REPORT OF THE COMMITTEE APPOINTED TO ARRANGE FOR THE MEETING OF THE INTERNATIONAL MEDICAL CONGRESS IN AMERICA, IN 1887

At the regular annual meeting of the American Medical Association, held in New Orleans, in April, 1885, the following resolutions were adopted

1 "*Resolved,* That the Committee appointed by this Association, to arrange for the meeting of the International Medical Congress in America, in 1887, be enlarged by the addition of thirty eight members, one from each State and Territory, the District of Columbia the Army, Navy, and Marine Hospital Service, to be appointed by the Chairman at this meeting, and that the Committee, thus enlarged, shall proceed at once to review, alter, and amend the motions of the present Committee as it may deem best "

(This resolution was amended by the provision, "that the members of the Committee should be selected by the respective State delegations ")

2 "*Resolved,* That the Committee appointed in pursuance of a resolution adopted by this Association, April 30, 1885, to constitute an addition to the original Committee of eight previously appointed to invite and make arrangements for the meeting of the International Medical Congress, to be held in Washington, D C, in 1887, be, and the said Committee is, hereby authorized and empowered to select a Chairman and a Secretary, and to fill all vacancies that may occur by death or inability to attend in the Committee, and to appoint the officers of the Congress "

The following is a list of the Committee enlarged in accordance with the first resolution as amended

W E Anthony, M D, Providence, R I
G Baird, M D, Wheeling, W Va
Robert Battey, M D, Rome, Ga

F W Beard, M D, Vincennes, Ind
*J S Billings, M D, U S Army, Washington, D C
*J M Browne, M D, U S Navy, Washington, D C
L P Bush, M D, Wilmington, Del
H F Campbell, M D, Augusta, Ga
R Beverly Cole, M D, San Francisco, Cal
E P Cook, M D, Mendota, Ill
W C Dabney M D, Charlottesville, Va
Charles Dennison, M D, Denver, Col
W E Duncan, M D, Ellendale, Dakota Ter
J W Dupree, M D, Baton Rouge, La
Ellsworth Eliot, M D, New York City
*G J Engelmann, M D, St Louis, Mo
N F Essig, M D, Plattsburg, Mo
Austin Flint, M D, LL D, New York City
E P Frazer, M D, Portland, Oregon
George F French, M D, Minneapolis, Minn
A Y P Garnett, M D, Washington, D C
S C Gordon, M D, Portland, Me
J W S Gouley, M D, New York City
F M Gunnell, M D, U S Navy, Washington, D C
John B Hamilton, M D, U S Marine Hospital Service, Washington, D C
*I M Hays, M D, Philadelphia, Pa.
*C Johnston, M D, Baltimore, Md
George A Ketchum, M D, Mobile, Ala.
R A Kinloch, M D, Charleston, S Ca
D A Linthicum, M D, Helena, Ark
John S Lynch, M D, Baltimore, Md
J J McAchran, M D, Laramie City, Wyom Ter
J W McLaughlin, M D, Austin, Texas
R C Moore, M D, Omaha, Neb
Robert Murray, M D, U S Army, Washington, D C
R D Murray, M D, Moultrie, Fla
J W Parsons, M D, Portsmouth, N H
William Pierson, M D, Orange, N J
N J Pitman, M D, Tarboro, N Ca
*L A Sayre, M D, New York City
X C Scott, M D, Cleveland, O
*Nicholas Senn, M D, Milwaukee, Wis
John V Shoemaker, M D, Philadelphia, Pa
F I Sim, M D, Memphis, Tenn
A R Smart, M D, Hudson, Mich
D W Stormont, M D, Topeka, Kan
J M Taylor, M D, Corinth, Miss
E F Upham, M D, West Randolph, Vt
W H Wathen, M D, Louisville, Ky
W Watson, M D, Dubuque, Iowa
W C Wile, M D, Sandy Hook, Conn
A H Wilson, M D, Boston, Mass

At an informal meeting of the Committee, held at New Orleans during the session of the American Medical Association, in April, 1885, Dr R Beverly Cole, of San Francisco, Cal, was elected temporary Chairman, and Dr John V Shoemaker, of Philadelphia, Pa, was elected temporary Secretary

The Committee held its first regular meeting at Chicago, Ill, on June 24th and June 25th, 1885, for the purposes of organization and the transaction of the business committed to it by the American Medical Association

In order to facilitate the holding of meetings in different sections of the country, the Committee deemed it advisable to select a Vice Chairman, in addition to a Chairman and a Secretary

The following named members were present at the meeting held in Chicago

G Baird, M D, Wheeling, W Va
Robert Battey, M D, Rome, Ga
F W Beard, M D, Vincennes, Ind
*J S Billings, M D, Washington, D C
R Beverly Cole, M D, San Francisco, Cal
L P Cook, M D, Mendota, Ill
W L Duncan, M D, Ellendale, Dakota Ter
Ellsworth Eliot, M D, New York City
N F Essig, M D, Plattsburg, Mo
G F French, M D, Minneapolis, Minn
A Y P Garnett, M D, Washington, D C
John B Hamilton, M D, Washington, D C
*I M Hays, M D, Philadelphia, Pa
George A Ketchum, M D, Mobile, Ala
D A Linthicum, M D, Helena, Ark
John L Lynch, M D, Baltimore Md
J W McLaughlin, M D, Austin, Texas
X C Scott, M D, Cleveland, O
*Nicholas Senn, M D, Milwaukee, Wis
John V Shoemaker, M D, Philadelphia, Pa
F L Sim, M D, Memphis, Tenn
A R Smart, M D, Hudson, Mich
D W Stormont, M D, Topeka, Kan
E F Upham, M D, West Randolph, N Y
W H Wathen, M D, Louisville, Ky
W Watson, M D, Dubuque, Iowa
A H Wilson, M D, Boston, Mass

The resignation of Dr Austin Flint, of New York, as a member of the Committee, was presented and accepted Dr J W S Gouley, of New York, was elected to fill the vacancy, and took his seat with the Committee

The Committee then organized, a majority of its members being present, by the election of the following officers

Chairman, Dr R Beverly Cole, San Francisco Cal
Vice-Chairman, Dr John S Lynch, Baltimore, Md
Secretary, Dr John V Shoemaker, Philadelphia, Pa

After the organization of the Committee, the number of members necessary for a quorum for future meetings was fixed at fifteen

The following preamble and resolution were adopted, to apply to future meetings of the Committee

"*Whereas* —It is expedient that the meetings of this Committee shall represent, as far as practicable, the profession of all portions of our country

"*Resolved* —That any member of this Committee who may be unable to attend a meeting, shall be empowered to send as his proxy for the meeting any member of the American Medical Association, in good professional standing and a resident of his State or a member of his Government Department "

In the course of the meeting in Chicago, on June 24th, and 25th, 1885, a plan of organization of the Congress was adopted, certain officers of the Congress were appointed, in accordance with the instructions received from the American Medical Association, and the Committee adjourned

---

*Resigned

*Resigned

The revised rules for the organization of the Congress and a revised list of officers will be presented with this report

In August, 1885, the Chairman, the Vice Chairman, and the Secretary, after consultation and communication with members, called a meeting of the Committee, to be held in New York City, September 3d, 1885, for the purposes of revision of the rules and the filling of certain vacancies in the list of officers of the Congress

The Committee met in New York City, September 3d, 1885, the following named members being present

Dr G Baird
" Robert Battey
" L P Bush
" R Beverly Cole
" W C Dabney
" Ellsworth Eliot
" A Y P Garnett
" S C Gordon
" J W S Gouley
" J B Hamilton
" George A Ketchum
" R A Kinloch
" D A Linthicum

Dr John S Lynch
" R C Moore
" William Pierson
" N J Pitman
" L A Sayre
" X C Scott
" John V Shoemaker
" F L Sim
" E F Upham
" W H Wathen
" W C Wile
" A H Wilson

The following named members were represented by proxies

Dr E P Cook, by Dr N S Davis, proxy
Dr A R Smart, by Dr William Brodie, proxy
Dr J M Taylor, by Dr E P Sale, proxy

The Committee was called to order at 12 M, September 3d, 1885, by the Chairman, Dr R Beverly Cole

The resignation of Dr L A Sayre, of New York, as member of the Committee, was received and accepted, and Dr A Flint, Jr, of New York, was elected to fill the vacancy and took his seat with the Committee The resignation of Dr Sayre was caused solely by ill health

The following "Rules" were unanimously adopted

RULES

1 The Congress shall consist of members of the regular profession of medicine, and of such other scientific men as the Executive Committee of the Congress may see fit to admit, who shall have inscribed their names on the register and shall have taken out their tickets of admission

2 The dues for members of the Congress shall be ten dollars each for members residing in the United States

There shall be no dues for members residing in foreign countries

Each member of the Congress shall be entitled to receive a copy of the "Transactions" for 1887

3 The Congress shall be divided as follows, into seventeen Sections

I General Medicine
II General Surgery
III Military and Naval Surgery
IV Obstetrics
V Gynæcology
VI Therapeutics and Materia Medica
VII Anatomy
VIII Physiology
IX Pathology
X Diseases of Children
XI Ophthalmology
XII Otology and Laryngology
XIII Dermatology and Syphilis
XIV Public and International Hygiene
XV Collective Investigation, Nomenclature, Vital Statistics, and Climatology
XVI Psychological Medicine and Diseases of the Nervous System
XVII Dental and Oral Surgery

4 The General Meetings of the Congress shall be for the transaction of business and for addresses and communications of general scientific interest

5 Questions and topics that have been agreed upon for discussion in the Sections shall be introduced by members previously designated by the titular Officers of each Section Members who shall have been appointed to open discussions shall present in advance statements of the conclusions which they have formed as a basis for debate

6 Brief abstracts of papers to be read in the Sections shall be sent to the Secretaries of the proper Sections on or before April 30, 1887 These abstracts shall be treated as confidential communications, and shall not be published before the meeting of the Congress

Papers relating to topics not included in the lists of subjects proposed by the Officers of the Sections may be accepted after April 30, 1887, and any member wishing to introduce a topic not on the regular lists of subjects for discussion shall give notice of the same to the Secretary General, at least twenty one days before the opening of the Congress, and such notices shall be promptly transmitted by the Secretary-General to the Presidents of the proper Sections The titular officers of each Section shall decide as to the acceptance of such proposed communications and the time for their presentation

7 All formal addresses, scientific communications and papers presented, and scientific discussions held at the General Meetings of the Congress, shall be promptly given in writing to the Secretary-General, and all papers presented and discussions held at the meetings of the Sections shall be promptly given in writing to the Secretaries of the proper Sections

No communication shall be received which has already been published, or read before a society

The Executive Committee, after the final adjournment of the Congress, shall direct the editing and the publication of its "Transactions," and shall have full power to publish the papers presented and the discussions held thereon, either in full, in part, or in abstract, as in the judgment of the Committee may be deemed best

8 The official languages of the Congress shall be English, French, and German

In the meetings of the Sections, no member shall be allowed to speak for more than ten minutes, with the exceptions of the readers of papers and those who introduce subjects for discussion, who may each occupy twenty minutes

9 The rules and programmes shall be published in English, French, and German

Each paper and address shall be printed in the "Transactions" in the language in which it was presented, and preliminary abstracts of papers and addresses also shall be printed, each in the language in which it is to be delivered

All discussions shall be printed in English

10 The President of the Congress, the Secretary-General, the Treasurer, the Chairman of the Finance Committee, and the Presidents of the Sections, shall together constitute an Executive Committee of the Congress, which Committee shall direct the business of the Congress, shall authorize all expenditures for the immediate purposes of the Congress, shall supervise and audit the accounts of the Treasurer, and shall fill all vacancies in the offices of the Congress and of the Sections This Committee shall have power to add to its membership, but the total number of members shall not exceed thirty A number equal to one-third of the members of the Committee shall constitute a quorum for the transaction of business

11 The Officers of the Congress shall be a President, Vice-Presidents, a Secretary-General, four Associate Secretaries, one of whom shall be the French Secretary, and one of whom shall be the German Secretary, a Treasurer, and the Chairman of the Finance Committee

12 The officers of each Section shall be a President, Vice-Presidents, Secretaries, and a Council

13 The officers of the Congress and the officers of the Sections shall be nominated to the Congress at the opening of its first session

14 The Executive Committee shall, at some convenient time before the meeting of the Congress, prepare a list of foreign Vice Presidents of the Congress and foreign Vice Presidents of the Sections, to be nominated to the Congress at the opening of its first session

15 There shall be a standing Committee on Finance, composed of one representative from each State and Territory, the District of Columbia, the Medical Department of the Army, the Medical Department of the Navy, and the Marine Hospital Service

The Chairman of the Finance Committee shall report to the Executive Committee of the Congress

Each member of the Finance Committee shall appoint a local Finance Committee for his State, Territory, District, or Government Department, consisting of one or more members from each Government Department or Congressional District

Each local Finance Committee shall report through its Chairman to the Chairman of the Finance Committee of the Congress

Dr S C Gordon, of Maine, recalled his withdrawal from the Congress, which action was accepted by the Committee

The following named gentlemen were elected to fill vacancies in the Committee of Arrangements

Dr J K Bartlett, Wisconsin
Dr J H Baxter, U S Army
Dr George Goodfellow, Arizona
Dr Henry Leffman, Pennsylvania
Dr John Morris, Maryland
Dr J R Tipton, New Mexico
Dr Thomas J Turner, U S Navy

The following resolution was adopted

Resolved, That the representative or representatives in this Committee from each State, Territory, or Government Department, shall organize the Financial Committees in their respective States, Territories, or Government Departments

It was decided that no person should occupy more than one position in the organization of the Congress

It was also decided that, in the published lists of the Officers of the Congress, the names of the Vice-Presidents and Secretaries of the Congress, and the Vice-Presidents, Secretaries and members of Councils of the Sections, should be arranged alphabetically.

OFFICERS OF THE CONGRESS

PRESIDENT

Austin Flint, M D , LL D , New York

VICE-PRESIDENTS

W O Baldwin, M D , Alabama
H I Bowditch, M D , Massachusetts
William Brodie, M D , Michigan
Henry F Campbell, M D , Georgia
W W Dawson, M D , Ohio
R Palmer Howard, M D , Canada
E M Moore, M D , New York
Tobias G Richardson, M D , Louisiana
Lewis A Sayre, M D , New York
J M Toner, M D , District of Columbia.
The President of the American Medical Association
The Surgeon General of the United States Army.
The Surgeon-General of the United States Navy
The Supervising Surgeon-General of the United States Marine Hospital Service

SECRETARY-GENERAL

Nathan S Davis, M D , LL D , Illinois

TREASURER

E S F Arnold, M D , M R C S , New York

CHAIRMAN OF THE FINANCE COMMITTEE

Frederick S Dennis, M D , M R C S , New York

EXECUTIVE COMMITTEE OF THE CONGRESS

Austin Flint, M D , LL D , President of the Congress
Nathan S Davis, M D , LL D , Secretary-General.
E S F Arnold, M D , M R C S , Treasurer
Frederick S Dennis, M D , M R C S , Chairman of the Finance Committee

PRESIDENTS OF THE SECTIONS

A B Arnold, M D , General Medicine
William T Briggs, M D , General Surgery
Henry F Smith, M D , Military and Naval Surgery.
DeLaskie Miller, M D , Obstetrics
Robert Battey, M D , Gynæcology
F H Tirrell, M.D , Therapeutics and Materia Medica

William H Pancost M D , Anatomy
John C Dalton, M D , Physiology
E O Shakespeare, M D , Pathology
J Lewis Smith, M D , Diseases of Children
A W Calhoun, M D , Ophthalmology
S J Jones, M D , Otology and Laryngology
A R Robinson, M D , Dermatology and Syphilis
Joseph Jones, M D , Public and International Hygiene
Henry O Marcy, M D , Collective Investigation, Vital Statistics and Climatology
John P Gray, M D , LL D , Psychological Medicine
Jonathan Tafft, M D , Dental and Oral Surgery

LOCAL COMMITTEE OF ARRANGEMENTS
(With power to increase their number)

A Y P Garnett, M D , Chairman, District of Columbia
The Surgeon-General U S Army
The Surgeon General U S Navy
The Supervising Surgeon General U S Marine Hospital Service
J H Baxter, M D , District of Columbia
C H A Kleinschmidt, M D District of Columbia
N S Lincoln, M D , District of Columbia
J M Toner, M D , District of Columbia,
and such additional members of the profession in the District of Columbia as the Executive Committee of the Congress may select

Lists of Vice-Presidents, Secretaries, and Councilmen for each Section were named by the Committee of Arrangements, but as it was not practicable to ascertain at once who would accept the places assigned them, or who of those who had been announced in the medical press as declining to accept positions before the present rules and organization had been adopted, as given heretofore, might wish to withdraw such declination, the final adjustment of these offices was referred to the Executive Committee of the Congress, and all correspondence in relation thereto was transferred to the Secretary General of the Congress

On motion, the Committee of Arrangements adjourned, subject to the call of the Chairman of the Committee JOHN V SHOEMAKER,
Secretary of the Committee of Arrangements

SOCIETY PROCEEDINGS

AMERICAN DERMATOLOGICAL ASSOCIATION

(*Concluded from page 684*)

WEDNESDAY, AUGUST 26—EVENING SESSION

Dr J NEVINS HYDE, of Chicago, read a paper on

THE RELATIONS OF LUPUS VULGARIS TO TUBERCULOSIS

He began with a detailed statement of all the cases of lupus reported to the Statistical Committee of the American Dermatological Association during the last seven years, and compared the frequency of the disease in this country with that reported in the Vienna Hospitals He then gave details of twenty consecutive cases observed by him in Chicago The clinical deductions from these records were then added, showing, according to the author, that there was a remarkable absence of pulmonary tuberculosis, scrofula and allied diseases in the family histories of the last twenty cases reported

The teachings of the two schools, represented in the past by prominent German and French authors were then referred to, and finally the later investigations demonstrating that lupus vulgaris was the result of bacillus infection, not to be differentiated in external appearance of the parasite from the bacillus tuberculosis

The following clinical facts were then cited in support of the later teaching of this subject as bearing on the vital point in the author's argument, viz , that lupus vulgaris was not the result as had long been taught of tuberculosis or other systemic diathesis, but was the product of a local infection by bacilli, entirely unassociated with any constitutional evidence of diathesis or predisposition 1 The unimpeachable character of the family record in by far the larger number of cases of lupus vulgaris 2 The fact that the disease is in its inception a disorder of the period of childhood, when for the most part, the habits of the child are favorable to infection 3 The several sites of predilection are those most favorable to such infection 4 The failure of the disease to spread by inheritance 5 The remarkable tendency of lupus vulgaris to cutaneous limitation

DR J C WHITE, of Boston, read a paper on

THE TREATMENT OF LUPUS BY PARASITICIDES

He briefly reviewed the evidence in favor of the parasitic nature of the affection All previous plans of treatment which had proved most successful, were those which would have the effect of destroying any parasite which might be present

A number of cases were then reported in which the local use of corrosive sublimate in the strength of two grains to the ounce of water or unguent had been used with beneficial results The ointment was especially recommended It had been rarely necessary to prolong treatment over two months As regards the permancy of the cure, the author was unable to speak, as the experiments had been continued for only eighteen months

DR S SHERWELL, of Brooklyn, expressed his profound disbelief in the parasitic nature of the disease, and did not think that the theories of Koch had been entirely proved It seemed to him that lupus and the scrofulous diatheses represent some form of syphilitic hereditary influence

DR S WIGGLESWORTH, of Boston, suggested that the oleates might be more efficient than ointments, on account of their penetrating power

Dr HYDE said that at the last meeting of the Association, Dr Taylor suggested the use of a solution of corrosive sublimate in tincture of benzoin He had used this in cases of lupus and in cases of infecting chancre It makes an excellent application

Dr W A Hardaway then read a paper on

THE TREATMENT OF PORT-WINE MARKS BY ELECTROLYSIS

In the treatment of this affection, the object is to excite sufficient inflammation to cause occlusion of the vessels Electrolysis seems to be the most convenient way of doing this At first the speaker had used a bundle of needles, but he now employed only the single needle It is important to allow a period of some weeks to elapse between the applications The histories of three cases were given in which this method had been employed

Dr J C White had used this method in one case, and had obtained considerable improvement

Dr Fox thought that all admitted that spider cancers and telengiectasis are amenable to treatment of different kinds, but when we come to port wine marks, a difference is found Better results can be obtained by electrolysis than by other measures, but it does not remove the trouble entirely He had sometimes passed the electrolytic needle deeply, endeavored to strike the artery of supply, and sometimes had produced a decided effect

Dr Denslow recently had seen a case of port wine mark on the labia majora of an infant This had ulcerated when the child was brought to him As a temporary measure, he applied the liquor gutta percha In two days, without other treatment, the whole mark sloughed out, leaving nothing but a simple ulcer, which completely healed in the course of three weeks

Dr Hardaway said that the advantage of the electrolysis is that it is manageable A practical point might be referred to, and that is, if after the operation the part be frequently mopped with hot water, the inflammatory disturbance will be greatly lessened

Dr S Sherwell, of Brooklyn, then read some

REMARKS ON A MOOT POINT IN THE ETIOLOGY OF PSORIASIS

He said that he had been struck by the great diversity of opinion in regard to the general health of those affected with psoriasis, and in order to arrive at something like a consensus of opinion on the subject, he had referred to the writings of most of the authorities in dermatological matters Brief extracts from various writers were then given The evidence thus obtained, strengthened the Doctor's opinion that the patients with psoriasis were generally in good health He thought that the theory of Piffard, who believes that the rheumatic diathesis is a great exciting cause of psoriasis, was the most rational theory that had been advanced

---

THURSDAY, AUGUST 27—SECOND DAY

At the business meeting the following were elected

OFFICERS FOR THE ENSUING YEAR

President—Dr E Wigglesworth, of Boston, Mass
Vice Presidents—Dr I E Atkinson, of Baltimore, Md., and Dr A R Robinson, of New York, N Y
Secretary—Dr G H Tilden, of Boston, Mass
Treasurer—Dr H W Stelwagon, of Philadelphia

Dr E B Bronson, of New York, was elected to membership

The next meeting will be held at Indian Harbor Hotel, Greenwich, Ct, the last Wednesday of August, 1886

Dr G H Fox briefly described

TWO CASES OF DYSODROSIS

The first patient, for want of a better term, he classed under this heading The patient was twenty-nine years of age, and had always perspired freely Four years ago the eruption began on the palms of the hand and had persisted The soles of the feet had also been affected at one time The skin of the hands was decidedly thick and had a dark hue, and was dotted with numerous elevations of epidermis, averaging in size that of a hemp seed The patient had never seen any moisture in connection with this There had been no itching The skin never peeled off Puncture with a needle revealed no serum or fluid of any kind

The second case was that of a woman aged 45, a cook, whose general health was good The present trouble began five years ago The eruption is on the face and consists of numerous large and small vesicles containing clear fluid

Dr Robinson said that these latter cases are not infrequent, and may persist for months and years They consist of obstruction of the sweat duct in the corium They never cause inflammation around them, although sometimes they may be surrounded by a little areola as the result of pressure The symptoms which they present do not at all correspond to those of dysodrosis as described by Hutchinson and Tilbury Fox, as belonging to dysodrosis of the palms

Dr A R Robinson, of New York, reported some

MYCOLOGICAL STUDIES IN TINEA FAVOSA AND TINEA TRICHOPHYTINA

The epidermis of different persons differs in susceptibility to these parasites Children are more apt to suffer with tinea trichophytina and favus, while adults more frequently presented tinea versicolor All children are not equally susceptible In many cases of parasitic disease there is impaired vitality previous to the development of the affection

The reader then gave an account of his investigations to determine the exact anatomical seat of the parasitic diseases in question, and to determine the changes which they produced in surrounding tissues

The conclusion was that in favus the rete is not affected until the later stages, when ulceration had made its appearance The parasite confines itself more particularly to the corneous layer The parasite of tinea trichophytina in some cases passes down into the rete, while in others it does not

A number of sections were shown under the microscope, which illustrated the points brought out in the paper

Dr White asked the reader what evidence he had that in ringworm and favus a decreased vitality was necessary?

Dr Robinson thought the fact that it was exceedingly difficult to cure these affections occurring in broken down subjects, until the general health is improved, proved this point

Dr White said he could not agree with the speaker in the importance of depressed general health as a factor in the production of these diseases He had never seen any necessity for internal treatment in these cases Where the disease is superficial, it is readily removed, but where it involves skin covered with skin, it is difficult to cure Although he thought the improvement of the general condition has nothing to do with the cure of the parasitic trouble, yet it is of service in the restoration of the parts to their natural condition after the parasite has been destroyed

Dr Piffard agreed with Dr Robinson that there is a relation between the condition of the general system and the rapidity of development and the rapidity of cure

Dr Duhring had always held the view that a particular condition of the epidermis was necessary for the growth of the fungus In the majority of cases of obstinate ringworm that he had seen, had been in individuals in poor health, but there are exceptions to this rule What this peculiar condition of the skin is, has not been determined

Dr Heitzman agreed with Dr White He had seen strong, healthy persons covered from head to foot with tinea

Dr Denslow had recently seen a large number of cases of ringworm of the head and beard, but all the patients were well developed, muscular subjects These were cured without internal treatment

Dr Charles Heitzman, of New York, then read a paper on

THE STRUCTURE OF THE DERMA AND THE DEVELOPMENT OF ELASTIC TISSUE IN IT

He called attention to the fact that Prof Stricker, of Vienna, the acknowledged best microscopist of Europe, has now accepted his views concerning the life of basis substance Dr Gartner (who was present at the meeting), Stricker's assistant, has brought from Europe an electric picture microscope, by means of which these newly discovered facts can easily be demonstrated upon a screen to a large audience There are three varieties of basis structure, differing from each other in their chemical constituents, viz The glue yielding basis substance proper, producing the spindles within the bundles of so called fibrous connective tissue, the cement substance between the spindles, and the elastic substance developing along the edge of the bundles in advancing age and in some tumors All three varieties are traversed by a delicate reticulum of living matter, in connection with the protoplasmic cords that fill the interstices between the bundles in the shape of a comparatively coarse reticulum Thus it becomes intelligible that in morbid processes, not only the protoplasm, but also the basis substance, participates in an active manner After the liquifaction of the solid fields of glue-yielding basis substance, the bundles directly are transformed into inflammatory corpuscles, from which starts every physiological and pathological new formation

Dr W A Hardaway described

A CASE OF MULTIPLE MYOMATA OF THE SKIN, ACCOMPANIED WITH SEVERE PAIN

A B, æt 36, married, with healthy children and good family history Never had syphilis Present trouble began a year ago Changes in weather produced pains in the parts which have since become affected To relieve these firm pressure was made with the hand Between the paroxysms pain was not produced by pressure Later the lesions presented themselves

Present Condition —A strong, hearty man, a peddler by occupation The pains still persist, recurring at intervals of one night to a week Each attack lasts two or three minutes, and does not return the same night The growth is situated on the right side of the back, in the mid dorsal region, and the course of the growths is obliquely outwards There are one or two of the elevations on the left side, three of the growths are as large as peas, others are small The epidermis is not abnormal On passing the hand over these growths there is no hyperæsthesia, but on deep pressure in the neighborhood of the larger masses the patient sinks moaning to the floor One of the larger growths was removed, and microscopical examination showed it to be composed of smooth muscular fibre

From a clinical standpoint, the case bears a close relation to the cases of neuroma which have been reported The speaker concluded that certain new growths in the skin, accompanied with severe pain, may be widely different histological structures We are not justified in assuming that a painful tumor of the skin is a neuroma or fibro-neuroma simply from its clinical history, without a microscopical examination

Dr Duhring said it would be difficult to differentiate, from the local appearances, the case described by Dr Hardaway, and that which he reported some years ago It is not possible from a clinical standpoint, as has been said, to differentiate these growths, and it was necessary to rely on the microscope There is one point, and that is in the case just described, no pain was produced by superficial manipulation, while in his case the pain was intense on the slightest touch, while firm pressure decreased the pain

Dr R B Morrison, of Baltimore, reported

AN UNUSUAL CASE OF TYLOSIS OF THE HANDS

The patient was a negro, aged 32, muscular, well developed, and apparently healthy By occupation he was a fireman of a steamer, and had occupied this position for ten years, shoveling coal with the right hand grasping the upper portion of the shovel, and the left hand sliding up and down the handle Two fingers of the left hand are worn off to the second joint, while the other two are going in the same way, the nails having nearly disappeared On several occasions he has drawn pieces of bone from the fingers There has been no pain at all connected with the affection On this hand there are some large blisters, underneath which there are red granulating surfaces, which are painless There is no history nor evidence of syphilis Specific treatment has been used without effect The man obstinately refuses to give up his work, so that little could be done in the way of treatment

Dr. Tilden thought there was a good deal of resemblance between this case and the cases of perforating ulcer of the foot, and this would lead to suspect a nervous element,

Dr Morrison had been led to consider it a strictly local affection, from the fact that the hand which was most exposed to rubbing and to the heat of the furnace, was the one most affected

Dr Duhring would be inclined to consider the callosities a secondary condition The occupation probably had something to do with the aggravation of the disease, but if the occupation had been different there would probably have been a similar change He would regard it as dependent on some deep change in connection with the nerves similar to that which occurs in perforating ulcer of the foot

Dr Morrison thought that as an affection of the nerve in the first place, he could hardly admit It may be that the continued congestion of the skin, dependent on his occupation, produced changes in the nerves or other part, which culminated in this affection In referring to the literature of the subject, he had found similar cases attributed to mechanical irritation

EVENING SESSION

Dr L A Duhring read a paper on

THE RELATION OF HERPES GESTATIONIS AND CERTAIN OTHER FORMS OF DISEASE TO DERMATITIS HERPETIFORMIS

Attention was briefly directed to the previous articles of the reader on dermatitis herpetiformis, and to a paper showing its identity with the impetigo herpetiformis of Hebra, also to a preliminary note on the relation of this disease to herpes gestationis and other similar forms of cutaneous disease, read before the Association at the last meeting

The object of the present communication was to prove the identity of so-called herpes gestationis with the vesicular variety of dermatitis herpetiformis, and to show that the term herpes gestationis was a misnomer, the affection being found in men as well as in women Secondly, that certain other so called forms of herpes, such as "herpes pemphigoide," "herpes vegetans," "herpes pyæmicus," etc, as well as certain cases regarded by the reporters as "peculiar forms of pemphigus," must be viewed as examples of this disease, and finally, that instances of the same affection were also met with in literature under the title of hydroa and under divers other captions Numerous cases from English, French and German literature were cited The paper of Dr Duhring was stated to be looked upon as supplementary to the preliminary note referred to, and embodied the results of considerable research into literature If the views put forth proved to be correct, a great deal had been gained for dermatology in bringing these peculiar forms of disease together

Dr J C White considered the term dermatitis herpetiformis a misnomer The disease should be called dermatitis multiformis The herpetic element is often wanting

Dr A R Robinson agreed with Dr White that the term dermatitis herpetiformis is too restricted, but he would prefer some term which does not indicate the pathology, until the disease is better understood

Dr J Nevins Hyde thought the term dermatitis herpetiformis is preferable, if for no other reason, because it is suggestive

Dr G H Fox showed here a photograph of a case of erythema multiformis, which might be mistaken for dermatitis herpetiformis This disease shoule be placed in strong contrast with dermatitis herpetiformis

Dr Duhring said the name dermatitis herpetiformis was adopted because it seemed the least objectionable The herpetiform character of the disease was characteristic The term dermatitis multiformis is already employed to designate a form of skin trouble

Dr G H Tilden, of Boston, read a paper on

MYCOSIS FONGOIDE

He described the case of a man, aged 28 years when he came under observation Three years before, several red, desquamating spots had been observed on the elbows Several months later, erythematous spots accompanied with pruritus were noted These lesions retained a dry, scaly character There were no vesicles or pustules At the end of a year, several red nodules appeared on the face and throat These, however, disappeared Later, a small papule appeared on the right thigh and increased in size From this there exuded a thin fluid This was followed by the development in many parts of the body, particularly the axillæ, groins and neck, of similar lesions, in some cases reaching the size of a hen's egg After a time there was superficial erosion of some of the tumors, but these excoriated tumors remained firm in consistence But some of the masses which were covered with epidermis were soft, but there was no evidence of the formation of pus There was also indolent enlargement of the lymphatic glands The general health continued good The patient passed from observation and died at the end of three years and a half

The report of the microscopist who examined the tumors was read His opinion was that the growths consisted of the formation of lymph tissue in corium

Reference was then made to the literature of the subject and the various cases, some 30 in number, which had been reported, were given, and the symptoms and course of the disease described Sections of the growth were also presented for examination

Dr White said that this patient was under his care during the last stages of the disease, and he presented the changes which had been described Some of the larger growths disappeared During the last months of his life the man was taking arsenic Death resulted from the occurrence of diarrhœa

Dr G H Rohe had seen a case four years ago of what he thought was the same affection The man, 62 years of age, had a multitude of these tumors Several had been extirpated before he came under observation, but there was recurrence with this fungoid appearance The man was given arsenic, but he died from exhaustion No autopsy could be obtained As far as could be detected, there was no affection of the liver or spleen

DR MORRISON had seen a similar case which was diagnosed multiple sarcoma of the skin It takes the microscope to settle the question in these cases

DR FOX had seen one or two similar cases in New York He suggested the use of calamooga oil Judging from its effects in other cases, it should be useful

DR HARDAWAY said that in a case of alveolar sarcoma, which he had reported, the disease had existed fifteen years, but the clinical features were about the same as they were years ago There is marked enlargement of the lymphatic glands The general condition is good

DR HEITZMAN, said that the description of the microscopic appearance is that of a lympho sarcoma, and the examination of the specimen confirmed him in the view that this was a case of lympho sarcoma

DR S SHERWELL, to show the amount of involution that may take place, referred to a case of melano-sarcoma under his care The man was treated with arsenic, mercurials, etc After six months treatment, the tumors almost disappeared There was not the slightest evidence of syphilis

DR FOX said in regard to the use of calamooga oil, that he had seen it used in a case of leprosy, and there was now not a trace of leprosy, except the contraction of the fingers which is, however, a secondary condition It has failed in many cases, but there is sufficient to justify a trial of it in the chronic inflammatory affections referred to

DR L N DENSLOW, of St Paul, read a paper on

URETHRAL IRRITATION IN THE MALE AS A CAUSE OF CERTAIN NEUROSES AND OF ACNE

He prefaced his remarks by a brief review of the cases of contracted meatus reported by Dr Otis He than gave an account of a number of cases coming under his observation, in which there were reflex conditions associated with conditions of the uretha, such as contracted meatus, stricture and excessive sensitiveness of the prostatic urethra In these cases removal of the urethral trouble produced an alleviation or cure of the affection to which attention had been directed He also reported four cases of severe acne in which the same treatment had been followed by marked improvement or cure of the skin disease In some of the cases ergotine was also employed The speaker said that he simply reported the cases as so many observed facts, and did not express any theory He would keep the cases under observation and at a subsequent meeting give a further report

DR WHITE had employed ergot in obstinate cases, without seeing the least benefit from its use

DR TAYLOR objected to this promiscuous cutting of urethras which is so common at present

DR SHERWELL believed that acne is largely a reflex disorder, but he was not in the habit of introducing a sound in every case of acne It is valuable in severe cases He believed in the action of ergot in connection with local applications, especially in females

DR HYDE said, that many of these cases with urethral trouble associated with acne, are patients who probably have been taking for some time, balsamic preparations, and as a result they have the development of acne

DR DENSLOW said, that in all the cases reported, the acne had existed since puberty The patients were not hypochondriacs, and they were not masturbators He was satisfied that no drugs had been used in any of them

(*To be concluded*)

DOMESTIC CORRESPONDENCE

LETTER FROM NEW YORK

(FROM OUR OWN CORRESPONDENT)

The Cancer Hospital—The Skin and Cancer Hospital—Deaths from Cancer in the past Decade—A Case of Yellow Fever—Death of Mr David Colden Murray

The first annual report of the New York Cancer Hospital, which has recently been published, contains a beautiful representation of its very handsome and commodious buildings, now in course of erection on Eighth Avenue, opposite Central Park between 105th and 106th Sts It was from discussions in the Woman's Hospital in this city that the scheme for the new institution originated The result of these discussions was an offer from Mr John Jacob Astor (his name not being mentioned) of a fund for the erection of a pavilion on the grounds of the Woman's Hospital for the treatment of cancer patients The acceptance of that offer was under consideration by the Woman's Hospital for nearly a year, when it was deemed unwise to carry out the project In the meantime, the late Mrs General Cullum, a lady of large means, with some others cooperating with her, in ignorance that it was Mr Astor who had made the offer to the Woman's Hospital, had been considering the independent organization of a cancer hospital The outcome of the matter was a conference between Mrs Cullum, on behalf of herself and those who were acting with her, and the friends of Mr Astor whom he had asked to cooperate with him, and eventually the transfer by Mr Astor of his offer to a separate hospital, to be organized for the exclusive treatment of cancer Up to the present time, the report states, the new hospital has received in money in all $308,572, a part of which is appropriated as a free-bed fund In addition to this, by the will of Mrs Cullum there are devised to the hospital lots belonging to her of the assumed value of $35,000, and a valuable property in San Francisco which is not immediately available

This is certainly an excellent showing for so youthful an institution, but at the same time it is greatly to be regretted that its founders and managers should have directed all their energy towards the organization of an independent cancer hospital, when there had already been in successful operation in the city for three or four years an institution devoted to exactly the same ends This was the New York Skin and Cancer Hospital, towards the support of which the great annual "Kirmess" at the Metropolitan Opera House always brings in such a handsome sum It is true that at this hospital diseases of the skin, as well as cancer, are treated, but it must not be forgotten that at such an institution the vast mass of those suffering from skin affections are out-patients Very few of these ever become in-patients, so that the wards are devoted almost exclusively to those affected with cancer Practically, therefore, all the advantages claimed for the newer institution in affording the best facilities for the most approved methods of treatment of cancer cases are to be met with at the older one already in active operation

For some years the New York Skin and Cancer Hospital has had a building on 34th St with a limited number of beds for in patients, and during the past eighteen months the institution has purchased quite a large and very desirable tract of land a short distance out of town, on which it is proposed to erect buildings which will offer ample accommodations for all suitable cases which may apply for admission The only thing which prevents the immediate carrying out of the plans of its managers is the lack of the necessary funds, and it is melancholy to reflect that if the friends of the New York Cancer Hospital, instead of attempting to found a second institution of the same character, had given their generous donations to the one already organized, we should have had by the present time or in the immediate future, a cancer hospital of which New York might well have been proud, and which would at once have been of more practical benefit to the community than will probably be possible in the case of either of these institutions for many years to come Instead of this, both of them are much crippled for want of means The older organization has not yet accumulated a sufficient fund to build, and the newer one, while it has one admirable building nearly completed, is as yet without the means necessary to open it successfully From the report referred to we learn that preparatory to opening there must be an engine house with its equipment and accessories, furniture must be provided and the grounds must be put in order, while the money to do this is still lacking Furthermore, as the building now in process of erection is exclusively for females, there must be another for males, and a chapel building is also contemplated It is said that when the authorities of the New York Skin and Cancer Hospital first learned of the plan to start another cancer hospital, they did all in their power to induce the founders of the latter to join forces with them, offering them a liberal share in the management, etc , but their proposition was rejected, and consequently we see the present unfortunate waste of energies resulting

While on the subject of cancer hospitals, it may be of interest to know that Dr John T Nagle, of the Bureau of Vital Statistics, has lately prepared from the records at the Health Department a table of the deaths from cancer during the past ten years From this it appears that in 1874 there were 416 deaths from this cause, of which 3 were from cancer of the throat, 4 from cancer of the tongue, and 7 from cancer of the mouth, while in 1884 there were 725 deaths from cancer, of which 9 were from cancer of the throat, 1 from cancer of the tongue, and 9 from cancer of the mouth The total number of deaths from cancer in the last ten years was 6,012, of which 47 were from cancer of the throat, 17 from cancer of the tongue, and 82 from cancer of the mouth

A fatal case of yellow fever has recently occurred in this city, the patient being a stowaway who arrived on a vessel from Cuba The bark John Gibson, on which he came, was passed through quarantine several days before he was attacked with the disease, on the strength of a bill of health given by the surgeon in charge at the Delaware Breakwater The Gibson left Cienfuegos, Cuba, with all well on board, but when she had been some days at sea yellow fever broke out among the crew The master died, and was buried at sea, and the first mate, the cook and two sailors also had it, but all recovered During the prevalence of the sickness two stow-aways were discovered, one of whom was attacked some days after landing at New York, as mentioned above At the Delaware Breakwater the vessel was cleansed amd fumigated, and the cook was retained in hospital

New York has lost one of her most estimable citizens by the death of Mr David Colden Murray, which occurred at the New York Hospital last week from tumor of the bladder Mr Murray was formerly a well known shipping merchant, and the old Murray line of steamships running between this port and Savannah was named after him He was a descendant of the distinguished medical Lieutenant-Governor of colonial times Cadwalader Colden, and a son of the late Robert I Murray, who was Secretary of the New York Hospital Association from 1824 up to the time of his death in 1858 Mr Murray succeeded his father in this position, which he retained up to his own death, so that the secretaryship was held continuously by father and son for sixty one years He was made one of the Governors of the hospital in 1853, and became Treasurer of the New York Dispensary in 1856, continuing this duty until one year ago Mr Murray was devoted to the interests of these institutions, and was greatly beloved and respected in the community P B P

NECROLOGY

GEORGE B FUNDENBERG, M D

Dr George B Fundenberg, of Pittsburgh, Pa , died at Somerset, Pa , on August 15, after a protracted and painful illness

Dr Fundenberg was born in Lewistown, Frederick county, Md , November 17, 1815 He was the second son of Daniel Fundenberg and Rebecca Fahnstock His grandfather was a physician, as well as his only two brothers, the one being a well known dentist of Pittsburg

Dr Fundenberg's mother, in 1830, after the death of her husband, moved to Pittsburgh, where her son entered upon the study of medicine in the office of Dr Jos Gazzam Subsequently he graduated at the "Pennsylvania Medical College," and began the practice of medicine with his brother-in-law, Dr S P Hullihen, at Wheeling, W Va , a few years later he returned to Pittsburgh and soon afterwards located in Ligonier Valley, Westmoreland county In 1849 he again returned to Wheeling, where he practiced his profession two years In 1851 he located in Somerset, Somerset county, Pa , where he practiced for nearly ten years In the fall of 1860 he moved to Cumberland, Md Here he resided for twenty years, and, as in all his former years, proved himself proficient and eminently successful as a medical man During his residence at Cumberland the Civil war broke out, and he received an appointment from Governor Curtin, of Pennsylvania, as surgeon of the One Hundred and First Pennsylvania Regiment Subsequently he was transferred to the Twenty-Third Regiment Soon afterwards was made Brigade Surgeon, but on account of ill health was compelled to decline all active duty, and was placed in charge of the large Military Hospital in Cumberland, Md For some years was president of the Alleghany County (Maryland) Medical Society He was twice chosen President of the Board of County School Commissioners of the same county

In April, 1881, Dr Fundenberg moved to Pittsburgh, where he continued to practice his profession until his death He leaves a widow and eight children, five daughters and three sons, all of the sons having chosen their father's profession The universal testimony of all who knew him was that he was a man of eminent worth He was a man of recognized ability in his profession, being for a score of years a frequent contributor to the medical journals of the country His last contribution to the literature of his profession was an article on "The Treatment of Uterine Flexures by the Intra Uterine Stem," which was read before the American Medical Association at its late annual meeting, and published in the Journal of September 5

MISCELLANEOUS

Disinfection of Canadian Mails —The Post-office Department at Washington, in view of the prevalence of small-pox in Canada, has requested the Secretary of the Treasury to have all mails from Canada to the United States thoroughly disinfected

The Society of Hygiene, of Paris, has awarded honorary diplomas to Drs H P Walcott Charles Folsom, and S W Abbott, of Massachusetts, for their labors in promoting public health

Dr B R H Auger, the well-known surgeon of the Larboisière Hospital in Paris, has been visiting in New York, and has been the recipient of considerable attention here He arrived on the *Amerique*, and will visit Japan, China, and the East Indies before returning to France

Dr P O Hooper, of Arkansas, President of the Board of Trustees of the State Lunatic Asylum, has been elected Superintendent of that institution, *vice* Dr C C Forbes, who has resigned on account of ill health The appointment is a most excellent one

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM AUGUST 20 1885 TO SEPTEMBER 4 1885

Magruder, D L , Lieutenant Colonel and Surgeon, granted leave of absence for fifteen days (S O 201, A G O , Sept 3 1885)

Middleton, Passmore, Major and Surgeon, assigned to duty as attending surgeon at these headquarters, vice Major J V D Middleton, Surgeon, hereby relieved (S O 131, Dept of the Missouri, Aug 28, 1885)

Cronkhite, H M , Capt and Assistant Surgeon, relieved from duty at Ft Reno Ind Ter , and assigned to duty as post surgeon, Ft Hays, Kansas (S O 129, Dept of the Missouri, Aug 26, 1885)

Girard, Alfred C , Capt and Assistant Surgeon, assigned to duty as post surgeon at Boise Barracks, Idaho Ter (S O 142, Dept of the Columbia, Aug 22, 1885)

Davis, Wm B , Capt and Asst Surgeon, having reported for orders from leave of absence, assigned to duty at Fort Porter, N Y , as post surgeon (S O 183, Dept of the East, Aug 28, 1885)

Powell, J S , Captain and Asst Surgeon, relieved from temporary duty at Ft Leavenworth, Kan , and assigned to duty as post surgeon at Ft Lyon, Colo (S O 128, Dept of the Missouri, Aug 25, 1885)

Banister, Jno M , Capt and Asst Surgeon, assigned to temporary duty at Camp of Competitors at Creedmoor, N Y , arriving not later than Sept 4 1885 (S O 58, Div of the Atlantic, Aug 31, 1885)

McCaw, W D First Lieutenant and Asst Surgeon, assigned to temporary duty at the Camp of the Troops near Kiowa, Kan (S O 128, Dept of the Missouri, Aug 25, 1885)

Kendall, Wm P , First Lieutenant and Asst Surgeon (recently appointed), to report in person to the commanding general Dept of California for assignment to duty (S O 201, A G O , Sept 3, 1885)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING SEPTEMBER 5 1885

Henry Stewart, Surgeon leave of absence extended one year from Oct 15, with permission to remain abroad

John M Steele, P A Surgeon, detached Sept 1 from Constellation, and report for duty at Naval Academy, Annapolis, Md

Geo A Bright, Surgeon, detached Sept 1 from Constellation, and wait orders

S H Dickson, P A Surgeon, ordered to Naval Academy, Annapolis, Md , as relief of P A Surgeon A A Austin

Henry B Fitts, Asst Surgeon, detached from coast survey steamer "Gedney," and wait orders

A A Austin, P A Surgeon, detached from Naval Academy, Annapolis, Md , and ordered to coast survey steamer Gedney to relieve Asst Surgeon H B Fitts

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol V Chicago, September 19, 1885 No 12

ORIGINAL ARTICLES

STATE MEDICINE[1]

BY FRANK S BILLINGS, M D,
PATHOLOGIST TO THE NEW YORK POLYCLINIC SCHOOL OF MEDICINE

The views expressed in this paper will be found ultra in the extreme, but as I have given over ten years earnest study to the subject of State Medicine, not only in books, but practically in other countries than our own and as they are the result of such study and honest conviction, I trust they will receive the attention which the subject at least deserves

The careful student of the medical institutions of the United States must most certainly admit that there is much to be desired, and much rottenness to be rooted out before they can become what they should be, and worthy of so wealthy a country and so energetic and practical a people But in speaking of the "Medical Institutions" of a country it must not be thought that the Schools alone are to be the subject of consideration *They* form one unit among many, but unfortunately for many schools, as well as for the people and the nation, it is the most important and fundamental unit in the whole organism If the foundation be weak, the whole super structure must be in a like condition

Before entering upon the discussion of this, the educational part of our question, it is necessary that we come to a clear understanding of what we mean by the "Medical Institutions' of a country To this end it is necessary that we define our ideas of medical science The ultimate endeavor, or purpose, of medical science, as we understand it to day, is not to educate *practitioners in medicine, i e*, to make "Doctors," alone, but rather to subject all disease to the most searching intellectual, physical, chemical, macro- and microscopical analysis possible, in the hope that we may thus be enabled to discover, not only the *nature of a given disease*, but also the *nature of its cause*, for all diseases have their internal, organismal or predisposing causes, as well as external or exciting causes, in order that we may elucidate means by which *to prevent the generation of such diseases* so far as possible in the future Up to the present time our endeavors in this direction have been almost entirely limited to diseases of an infectious or contagious nature

Our work in the future must also include the so-called "sporadic," or as I would term them, common, diseases of animal life, the chief cause of which is to be sought in the utter ignorance of humanity of the laws of life The "Bacillus of Ignorance" plays a much greater rôle in the causation of disease than that of phthisis, cholera, or septicæmia, will be fully as difficult of exposure, and much more difficult to combat The world needs an applied physiology suitable to the intelligence of the educated and thinking masses, as much as it does for the medical student

While Prevention is the Alpha and Omega of our endeavors, it is not always of possible attainment so that the world demands the practitioner to treat its diseases, or accidents, as well as the investigator to search into their nature and causes, and to make experiments as to their treatment The individual man naturally looks upon the practitioner as the most important of the two, because it is with him alone that he comes in immediate contact For the mass, however, and by that we mean the nation as a whole, the investigator is of far greater importance, though ignorance still so rules the world that none but the exceptionally educated have as yet recognized the value of this fact The practitioner needs to learn that even he would be at an intellectual standstill were it *not* for the men in the laboratories whom he so often styles "the theoretical and impractical men of his profession"

The medical institutions of a country are
1st The Schools
2d The Boards of Health, or its Preventive Force
3d The Practitioners

The Science of Medicine is the great *Life-saving Service of the World* The medical institutions of this country should be as much a part of its "Life Saving Service" as that brave body of men that has been organized along our sea-board and lake-coasts during the past ten years Every intelligent person must admit that if the medical institutions of this country should be a part of its "Life Saving Service," and in reality almost the whole of it, that they should also be organized and regulated in the same manner as any other branch of the public service The division of this service has already been stated, but such a classification has also another practical value

This service has been divided as follows
1st The Educational Part
2d The entire Hygienic Organization

---

[1] Read in the Section on State Medicine at the Thirty Sixth Annual Meeting of the American Medical Association

These two departments must be entirely regulated and supported by the State.

3d. The Practical Part, which must be controlled by the State, as it is subject to the Hygienic Department, but receives its remuneration directly from the individual receiving its services.

The Medical Schools are the foundation of this entire service. It has already been said that "if the foundation is weak the entire organization must be of the same character." To the Schools we have to look as the nurseries out of which we are to draw our supplies for all parts of this extended and complicated branch of the Public Service. What then is the work of the Schools?

I. The education of scientists capable of teaching others so that they may follow in their paths and become able and enthusiastic Investigators into the nature of disease, and everything having an etiological connection therewith.

II. The education of Practitioners in the principles which have resulted from such scientific researches, as well as the practical experiences of the world.

Do our schools fulfil these conditions? Emphatically, *No!* If we make a careful survey of the literature of original research, we shall be made aware of the fact that the medical schools of the United States are conspicuous by the almost total absence of recognized contributions to this important field of preventive medicine.

Practitioners are, and have been, well educated at some of these schools, but the fundamentals upon which teaching depends are nearly all borrowed from Continental authors, the practical side is largely American, and if due regard be given to what our European confreres are doing, leaves nothing to be desired in that direction.

Why is it that our schools do not fulfil all the demands that we have to make upon them?

1. Because there is not a single medical school in this country that is *properly supported and regulated by the State.*

2. Because there is not a medical school in which all the teachers have been selected for their abilities not only to *teach well, but to investigate better.*

3. Because there are no schools offering free opportunities to men of distinguished ability to work and teach as "private docents," thereby giving genius a chance for self support, and enthusiasm an opportunity to extend over the land.

4. Because we have no school where education is free, where the one purpose is to fulfil its whole duty as a *branch of the public service.*

These ends can only be attained by a National Institute of Medical Sciences, supported and regulated by the Government through a well selected National Board of Health.[1] To this should be added a department of Comparative Medicine and Vegetable Physiology and Pathology.

Endowed schools can never meet these requirements. All such schools are private, in that they form no part of the Public Service of the State. They can never, to eternity, shake off the evil influences which they have inherited from their inception. Speculative schools will not even let science enter their doors, save as they must in the form of honeyed misrepresentations to attract the students flying round after cheap and easily-obtained diplomas. Up to the present time every medical school that has been established in the United States has been for the sole purpose of making practitioners. The majority of those that I have classed as "Endowed" *are honest schools*, and were established in the earlier days of their respective States to meet a public necessity. The country was young then, almost the entire population being busied in developing it. Drones and sick people were a luxury the earlier settlers could not afford to have with them. The first they drove out, and they desired the sickness driven out of the others. The intelligence of the country has not augmented in any proportion to its increase in wealth and population. It still fails to grasp the mission of medical science in the world, and to realize that its executive institutions should be a part of the Public Service of the State. It does not realize that research is the foundation of all knowledge, or that "*Knowledge is*—the—*Power*" by which alone we are enabled to prevent the ravages of disease. It still demands *curers* only.

If we are called before a committee of one of our legislative bodies with regard to any disease that is making itself unpleasantly frequent, they ask us, "What can you do to cure it?" not what is its nature, and if we speak of research into its nature, and the necessity of money and time to make investigations with the hope of preventing it, they immediately put us down as a "crank."

The other class of schools, the speculative (to which should be added a new variety, lately imported, of veterinary schools, that run their hospitals upon a "subscription" basis), although incorporated, are only to be condemned. They are the result of unscrupulous greed on the part of selfish and ambitious men, who desire to increase their influence and incomes—at any cost to the profession—by being thus enabled to pose as "the learned Professor" before an unreflecting public, as well as from the fees of students for whom they feel no responsibility either with regard to the quantity or quality of education given them, and on the other hand, of the action of ignorant, irresponsible and unthinking legislators that are willing to charter anything. In their endeavors to get students—and the faculties of these speculative schools have very capacious maws—they send the most astonishing catalogues broadcast over the land, in which they state their advantages one over the other. These illustrated pamphlets remind one very strongly of the advertisements of summer hotels and boarding houses. The buildings and surroundings are very imposing—upon paper—and there is very great similarity in the characters of the proprietors.

In the one case they care nothing about the intellectual food which their patrons receive, as in the other with regard to the bodily, they are both alike in demanding prompt and full payment.

In 1876 we had some sixty, while in 1885 we are credited with having 134[1] medical schools in the United States. In some States there are as many as eight of these institutions and in at least one of our cities there is the same number. The majority of these schools are of the speculative variety. As they are in no sense of the word of public service, there is no valid reason for their existence. No branch of the public service should have even the suspicion of speculation hovering over it, though all parts of this service should be conducted after the the most rigid and exact business principles. What do we mean by "business principles" with reference to medical schools? The returns which the people have a right to expect are the same as in any other branch of the Public Service. *Absolute devotion to the duties of the State.*

---

[1] The time has come when we should agree to make Washington the Central Light of America in Medicine.

In this Public Health Service, especially its educational part, only the enthusiast is fitted for the work. This spirit can never result from our present medical school system.

It is said that "there are no classes in America." This is not true; we have every class of worthy and unworthy society save the most important one of all to the continued development of the country, the preservation of the Public Health and increase of the Public Wealth—the Scientific class. We must have a class of original investigators in the service of the Government as teachers also, who, like the army, are paid by the Government, and subject to pension on retirement. Un American or not, in the face of the ignorance of the land, I say, we must adopt this system before we can be called an enlightened nation. This class forms the sappers and miners who prepare the way and make possible the success of every other class in the world. Without this class of what worth is the accumulated wealth of the world when disease threatens? In the face of cholera the millionaire for once bows in proper humility to knowledge; the practitioner for the nonce loses some of his self conceit, and the world looks at the work of the investigator. The people cease to cry for "cure-alls," but rather demand that the pest be prevented from landing on our shores. Science is the continued search after new facts, and the truth. Without science the world would finally come to a standstill, and riches be valueless; they would simply consume themselves. Science is the equalizer which makes possible new endeavor, and by her discoveries revolutionizing business frequently breaks the back of monopolies, giving new courses to wealth.

Let us look at some of the evil results of our medical school system.

I. Not being scientific, *i. e.*, investigating, schools, they have exerted but little influence towards the advancement of medicine in the country.

a. The reason for this is

1st. Not being State schools, they have constantly to struggle for existence, which gives

2d, Lack of funds.

This condition has been rendered still worse by the idiotic chartering of speculative, opposition, or special schools of medicine in numerous States and cities, so that the income from students' fees has been rendered unnecessarily small.

b. The endowed schools have, for this reason, been obliged to depend upon men as teachers in the fundamental branches of medical education who had had no especial fitness for the work, *except that they were born rich, and that some relative had been one of the original founders of the school.*

c. These two conditions—poverty and nepotism—have exerted a most unfortunate influence in limiting the freedom of the trustees in their selection of teachers and preventing them from seeking genius wherever they could find it.

They are not permitted to buy their goods in an open market, but like the American ship owner, must take what he can get, "cheap and nasty" or not, as the Germans said of their Centennial exhibit in this country.

II. The great number of these medical schools, and the fact that the majority of them are speculative, tends to lowering the standard of education, and to the production of an utter want of uniformity in the quantity and quality of education acquired by graduates from different schools either in the same or different States, or what is more disgraceful, in the same city.

III. This evil condition of things has resulted in bringing unnecessary disgrace upon an honorable profession, and of lowering the appreciation of the same in the public mind. More incompetent than really trustworthy practitioners have thus been enabled to represent themselves as "M. D.'s" or "Doctors."

IV. So little appreciation have the people of the majority of the States of the value of thorough education in medicine, that it has thus far been impossible to find intelligence enough in their representatives to *regulate the practice of medicine* in order to protect the public and reward honest endeavor by passing a law to prevent charlatans from using the title "Doctor" as a manner of deception.

Medicine being a part of the Public Service, it should be regulated by the State. If one introduces the questions herein brought to discussion to the attention of the most intelligent of our teachers, or practitioners, he is invariably met with this answer: "*Yes, these things are all too true, but how are they to be obviated? You must remember that we are but a young country yet.*" I may be mistaken, or perhaps over conceited, but I think I have given more thoroughly honest and sceptical study than any one in this country for the reasons: 1. That I desired to have all these evils avoided with regard to veterinary schools; 2. That it is my present ambition to do my part towards out-rooting these evils from all medical teaching in the United States.

The causes of these unfortunate conditions are not to be sought in the youthfulness of the United States in comparison with other nations, for it must be remembered that the settlers and immigrants to this country brought and bring with them the average intelligence of their native lands, but to two other circumstances, and nothing else. 1st. Our English inheritances. 2d. That we have a representative form of government—i.e., are a Republic—which does not represent the acme of intelligence in the country by any means.

---

[1] Boston Herald.

Our English Inheritances.—There has been, or is, no better appreciation of the true relation of medical science to the public in Great Britain than America. There is no such thing as organized State Medicine in Great Britain or in any of her dependencies. There, as here, all the medical schools are either endowed, or chartered speculative institutions. There, as here, you can find the only veterinary schools in the world that are conducted on the "subscription plan," regardless of every principle of professional honor. They are all "Doctor" makers, nothing more. The government assumes no responsibility as to how the instruction is being given or the examinations conducted in the British medical schools. There is scarcely any organized research at the schools, the British government is opposed to it. It believes in upholding ignorance and putting restrictions upon knowledge. It does not support "Preventive Medicine." It places itself on the side of ignorance, prejudice and sentimental gush—a Holy British Trinity—by enacting a law against the intelligent use of vivisection. It drives such men as Lister to the Continent to gain knowledge by which human life is to be spared and disease prevented by this senseless law. The British government is an improvement on ours in some respects, in that if it does not regulate the medical schools, it has allowed the respective professions to select their own examining and diploma granting bodies, and by prohibiting to charlatanry the use of titles belonging to the regular graduate has shown that it has some regard for honesty and its duty to the public. Great Britain has neither a well organized Public Health or Veterinary Police Service. All this ignorance our ancestors brought with them, and we have not improved an iota since that day, in fact, we are far behind Britain yet, for she does not protect, cherish and nourish the pestiferous diploma mills which disgrace many of the States of this Union.

The absurd degree to which we have nationalized the idea of the "rights of the British freeman," or individual citizen, and failed to appreciate the fact that all such rights at once cease when they cause injury to another, or to the masses, finds its expression in our doctrine of "State rights," and in the senseless opposition to all laws having relation to questions of public health, animal diseases, or for regulating the practice of medicine. We do not yet know, either as a people or as governments, the meaning of either of these terms. In the United States, the people of which boast so much about their prosperity and intelligence, there is scarcely any such thing as State Medicine. No efficient Boards of Health, no trustworthy milk inspection, no inspection of dairies in order to guarantee to the public that the milk they consume or feed their babes upon is not drawn directly from ill fed and housed cattle, or from cows diseased with garget, or what is far worse, tuberculosis, no thorough meat or market inspection. Not a State in this Union gathers reliable statistics upon these vital questions. Our Boards of Health are a farce, composed of men the majority of whom have more knowledge of "ward politics" than of their technical duties. Not one of the States has a suitable laboratory at its disposal wherein investigations and experiments can be constantly made.

The question of questions is: Why are these conditions peculiarly characteristic of English speaking countries? It is an axiomatic fact that the more "English" a people are the more inefficient their government upon all questions of the kind we are considering. Another fact of like nature has long since made itself evident to every careful student of the industrial sciences. That original research has prospered and at present flourishes among the great civilized nations of the world in a direct ratio to the non republican character of their governments. In other words, the history of Republicanism gives direct evidence that thus far it has been utterly unequal to the appreciation of the great cardinal principle of national prosperity, that "*Public Health is Public Wealth*," that this condition cannot be attained, or maintained, without the careful regulation of the medical institutions of a country as a part of the Public Service, that the entire system is embraced under the term of State Medicine. From these standpoints every Republic and every extremely liberal government has been a failure.

Again, wherever we see science flourishing, and original research flourishing under a republican banner, as at present in France, it is not due to republican statesmanship, but rather that the Republic has inherited, and had sense enough to retain, or indolence enough to let alone, the good of the monarchical institutions which in other ways it superseded. Monarchical France made possible the work of Bichat, Cruveilhier, Laennec, Dupuytren, Magendie, Claud Bernard, Pasteur, Chauveau, Toussaint and others, and monarchical Germany has given opportunity to Mueller, Helmholz, Du Bois-Reymond, Ludwig, Webber, Rokitansky (of Vienna), Gegenbauer, Virchow, Koch, Gerlach, Bollinger, and so many others that the world can never pay the debt that it owes such governments for appreciating the fact that the world owes such men a living, and giving it to them, so that they have been enabled to devote their lives to its service.

Put Britain and America upon the stand, and question the Hand that records the immortal deeds of the men of medical science. *How much have you done to support original research?* We turn over the book in vain, the leaves devoted to the American and British governments are—blank. Perhaps it is thought that I am in favor of a monarchical form of government? Of that there is no danger, but here we are faced by conditions necessary for the well being of every nation, and by the singular phenomenon that thus far in the history of the world wise legislation has not been adopted by or flourished under the banners of liberal governments. Everything that is of public importance is of a political nature, and not one deserves a higher, more disinterested, or non partisan statesmanship than the question of Public Health. All questions with reference to the medical institutions of a country bear so intimately upon its prosperity that all wise thinking men who neglect them, or who would leave them to the consideration of the ordinary lay-politician, are false to their duties

The question then left for us to consider is Why is it that original research in medicine has prospered under energetic monarchical governments, and public health organizations found their most complete development, and not under liberal governments?

The answer is In governments "of the people, by the people, for the people," the masses never think of anything outside of their daily routine life they follow in the ruts already made for them, and leave the interests of the country entirely in the hands of party leaders who make a business of politics and not a science of statesmanship Only when the political affairs of a country become pathological,—that is, the life of the body politic is threatened, does the the average citizen,—the intelligent masses—awaken from his political self complacency and place his intellectual horoscope beyond the party ruts and take any active interest in the welfare of the public of which he is a member Pathological politics leads to the development of the mugwump, and to true statesmanship If the pathological conditions threaten the vitality of the ordinary citizen's pockets he awakes to the danger much quicker than when only his health is endangered, and even less quickly when the danger is of a general and not local nature So long as the cholera is in Europe and business prospers in this country, the American citizen scarcely thinks it of any account

The American Government takes no part in the etiological researches of the world It offers $25,000 as a prize to the discoverer of the cause of yellow fever, but not a cent to pay him for, or during, his labors, and if he dies of the disease during his studies, it cares nothing what becomes of his family

With cholera at our doors, the citizen suddenly wakes up and begins to wonder how it came there He now wants legislation, which, like his restaurant dinner, must be half done and served in a hurry It is the result of practical experience that has led monarchial governments to the appreciation of the fact that "public health is public wealth," and that there must be such a thing as State Medicine

Whatever tends to render the State prosperous is directly beneficial to, or shared in, by the government, and whatever tends to *injure* any national interest, and the public health is the greatest, at *once* reacts unpleasantly upon the government Let us make this apparent by some examples The balance of power, other things being equal, was at *once* placed on the side of Germany by the presence of cholera in France during the past summer The loss of 100,000 men by either of these nations from disease would be liable to have an instantaneous effect upon the peace of Europe and the stability of some of its governments Again, there is a bovine pest, unknown to this country, but known to Europe as the "rinderpest," which is to cattle what the cholera is to men Were this cattle plague to break out in either of the countries named, it could cause such losses in both food material and resources as to decidedly weaken the afflicted nation Hence it is that an active veterinary police and public health organization is not only in the interests of every individual citizen, but also to the self interest of every government No government is true to its duties that does not support State Medicine and regulate it

In speaking of these conditions previously I have called attention to the favorable geographical and political situation of the United States We are "monarch of all we survey" We have no jealous and powerful neighbors to force our government to make a careful study of every little thing which may advance or interfere with the strength and prosperity of the country Public health is not, as in Germany, a national necessity We are not, as Heine said of his married countrymen, "*raising food for French cannon*" It is not necessary that we watch over the healthful condition of this food, or to see that it itself has food enough that the cannon may not suffer for material, or that we have not more food for them than an opposing nation can consume, and thus overrun our boundaries and wage war among our cities, or devastate our harvest fields Not one of these questions strikes directly at the vitality and prosperity of our Government, and the same is true of that of Britain itself But if public health is not with us as a national necessity for these reasons, it is still of vast importance as a matter of public wealth, *i e*, to our national prosperity

No one organ of a body can become badly diseased without the others suffering, so, no one locality of a nation can become the seat of some death dealing epidemic without influencing the remainder according to the violence of the outbreak and the importance of the interests thus interfered with The rinderpest starting on the Atlantic coast and extending westward over the country would cause an immense amount of loss and misery to many individuals, the cholera may cost us many lives, and interfere with business, but not one, or all of these things will, or can, cause the least trouble to the Government on account of our situation The unharmed citizen does not fear that because his country is thus momentarily weakened, his sleep will be broken by the clarion sounding 'To arms!" Stocks rise and fall, and he profits thereby

It is the duty of every government to study the needs of the people, to support research in order that all the resources of the country may be developed, and new ones found, that the people may, in confidence, pursue their daily vocations, and not wait, as is the case with us, until public excitement makes the government act There is always danger in delay The "wolf" finally comes to governments, and nations as well as the sheep suffer All true governments must be parental, whatever their constitutional form may be

I have already shown what form it should take so far as the medical profession have a duty in the matter Coming back, then, to the question of State Medicine, we find that we have in reality to deal with very serious pathological conditions The first difficulty is to know what to do with our school system and its numerous inequalities? We are well aware that there are altogether too many medical schools in the country. In the future we must endeavor to increase the quality, and not the quantity of graduates. We cannot fall back upon Examining Boards elected by the profession, and authorized by the Government to issue diplomas, as is the good fortune of our confrères in Britain. The schools are too many, the profession too split up to make this practicable. A reform can only be made possible by the concerted action of every true man in the medical profession in the United States.

Every medical school in the country must be made, by laws common to each State, to begin and end its course on the same day of the same month each year, and to have exactly the same number of courses.

The education must be made approximately the same in all of them from the qualitative point of view.

We must unite and have a legal stop put to the endowing, or incorporating of any more schools in States where one endowed school already exists.

There is no necessity for any special schools. The charters of any schools that cease teaching in any State where one endowed school still exists—it matters not to me if the surviving school be Homœopathic—must be cancelled forever, and no new one chartered, the remaining school must be made scientific by State force.

We must all do our best to strengthen the best endowed school in our respective States—irrespective of our Alma Maters—no matter how conservative, or mismanaged it may be. It is a better policy to reform such than to weaken it by starting a weaker opposition school. We must remember that medicine is a profession and not a business, and the schools must be made to pay by delivering good goods.

The question of what shall be the examining and diploma granting power is surrounded with difficulties, many of which would be removed were all the above conditions complied with. Given, State schools, then none but the Faculty should be the examiners. Under existing circumstances, it would seem as if this power should rest in the State Board of Health, which should not be, as in Massachusetts, one of lunatics and paupers as well. A Board of Health should be composed of a number of the most advanced specialists upon Hygiene in the State, and a Hygienic Engineer and competent jurist. It matters not what party they belong to or what church they attend.

The Regulation of the Practice of Medicine.—It is now too late to make all the schools State institutions, still, they should all be made to wheel into line and be made a part of the Public Service of the State. This is not the difficult task it appears to be. The Board of Health must be the examining, diploma-granting, and licensing-to practice body for each State, and the schools must govern themselves accordingly.

Schools not coming to terms, or persisting in sending out too many incompetent graduates, to be permanently closed by law after due notice. The thing is to kill out this school pest, which is as infectious as the cholera. It must be made impossible for any person to practice medicine in any State as an "M. D.," "Doctor," "Doctress," "Physician," or "Surgeon," without having first passed the legal examination, and received the diploma and license of the Board of Health of said State. A record must be kept of all students graduating, description of person, age, parentage, etc., and number of license. When said graduate settles for practice in a given locality in said State, said license must be shown to the local health officer, or selectmen, who should take its number and verify it by correspondence with the State Board of Health.

Practitioners who have practiced medicine under the above conditions in another State should, on leaving said State to remove to another, have their license endorsed by the Secretary of the Board of Health and local officer of the State where he has been in practice. If the conditions in said State are accepted as equal to those of the State into which he moves, the Secretary of the Board of Health will simply verify his license, and he shall be allowed to practice under the above conditions.

The public health organization is thus made to hold in its hands the keys by which to lock up quackery and incompetency within the narrowest possible limits. We have already removed the charm of the charlatan by taking away from him all the titles by which he can misrepresent himself to the public. The power to check swindling of the same nature should also be given to the State Board of Health with reference to the use of the same titles by the "patent medicine" proprietors in their advertisements. Honesty is all we demand. We want no protection—but the public does.

The medical service of the country should form one comprehensive Public Health Organization. It should include the veterinary police, all kinds of animal, vegetable and food supplies, and the regular, veterinary and irregular practitioners in its group. It should begin with a National Board of Health at Washington, and State Boards in each State.

We will limit ourselves to the consideration of a State organization. Aside from the State Board, there should be local boards in each city and large town. The country districts are now conveniently divided into counties, each of which should have its chief health officer and veterinary police official, the counties should be districted, and each district should also have its official representing preventive medicine in each profession. The markets and slaughter houses in the State should all be State or local property, no large food animals should be killed outside of them. The State should appoint the inspectors. None of these officials should be appointed by the local authorities. All should be paid by the State. All should hold position during active life, or up to an age fixed by law, no removals should occur except for cause, not political. The medical official should replace the coroner in his district. If injured during public service so as to unfit him for future usefulness, or dying from injuries received therein, the public health official, or those directly dependent upon him, should be subject to pension.

The medical officials of the State Board of Health must of necessity be at first appointed by the Governor, the engineer and jurist should be selected by the medical officials. All local officers should receive their appointment only after having shown their fitness by examination before the State Board. All vacancies should be filled, as far as possible, by the advancement of local officers from the lower grades, the latter to be filled by competition when necessary. Vacancies in the State Board to be filled by promotion from the most able of the county officials.

The pay of this health organization should be graded accordingly. Before being eligible for competition for the positions in this organization each competitor should be obliged to attend a special course of studies, for which the State should supply all the means and opportunities free. The State Board of Health of each State should have at its disposal a well ordered laboratory with funds sufficient to make continued chemical, biological and pathological researches and experiments. A place also where any one desiring so to do could go and devote himself to the same kind of work, the State supplying the material, but not paying any such person a salary unless it made use of him. This laboratory should also serve as the place for the instruction of those desiring to compete for appointments on the health organization, and also as an advanced school of medicine for those desiring special courses in the above branches. The private workers could thereby pay their way and become useful servants to the State as well, at no cost.

Having almost completed our task, it is simply left us to show the only practical way of regulating the practice of medicine without interfering with the personal rights of the American citizen. The whole practicing fraternity, regular and irregular, human and veterinary, should be obliged by law, to report to the nearest State medical official the existence of the suspicion of any infectious or contagious disease in any person, or animal, to whom or which their services should be called. The State Board of Health should publish a list of such diseases, as well as a code of instructions and laws for the guidance of the officials and public where they occurred. Any violation of these regulations should be punished by fine, or imprisonment, according to the nature of the case. Ignorance should never be accepted as a mitigating circumstance.

THE PROMISE AND POTENCY OF CLEANLINESS.[1]

BY GEORGE HOMAN, M.D.,

OF ST. LOUIS.

The soundness and value of any opinion held concerning the origin or impulse of infectious or contagious movements taking place in the human system, or amidst human populations, must of necessity depend upon the reasonableness of the evidence brought forward in support of such view or opinion; and, of the various hypotheses advanced by different writers to explain their occurrence or beginning, as the vital cell (Beale), the nervous theory (Richardson), or the parasitic-life doctrine, as expounded by Pasteur, Koch and others, the evidence afforded by observation and experiment in favor of the last named, seems to largely out-weigh the arguments put forth in behalf of the two first mentioned.

Aside from the many nearly conclusive showings yielded by experience and demonstration—all pointing to the active presence of living particles as the influential causes and movers of displays of infectious or epidemic power—there are additional strong arguments in its favor drawn from analogy, so that the reasonableness of the statement that certain life-forms, in varied and multiplied shapes and phases, do exist, and descend in size, and recede in vital aptitude, until they pass beyond the reach of even the assisted human vision, does not admit of doubt or valid questioning.

The inquiries and findings of searchers in this domain of nature, both those who work in the panoramic field disclosed by the microscope, and those others who test and turn to useful every day account, in medical and surgical practice, the available profitable knowledge thus gleaned and gained, all tend with increasing force toward this conclusion, and toward the identification and arraignment of suspected, or accused, disease bearing or disease causing entities. Observers in this field of miniature activity and life, gave the needed substantial backing and scientific confirmation to the already existing conviction in the professional, if not public, mind that therein was to be found the lucid explanation and rationale of many morbid processes observed, which were always consistent and symmetrical in the main as regards their individual evolution and sequence, but which differed widely when compared one with another in respect of intensity of action and effect upon the economy and health of humankind, whether considered in the individual person or in the aggregate mass.

Prior to the light yielded by such investigations, that which is commonly known as dirt was generally thought to be inert, if not positively wholesome, in its nature; and the suggestion that systemic hurt, and lasting harm to health could be caused thereby was likely to be received and treated with scornful surprise and disbelief. The inflammation that often followed slight traumatic hurts, as scratches by the claws of animals, or the human finger nails, was ascribed to the poisonous nature of these structures themselves, or to a constitutional fault or vice in the recipient, and not to the foreign matter, carried or admitted by these weapons into the inflicted wounds.

The practical and dominating recognition by Lister and others of the fact that multiplying organisms, capable in themselves of much harm to health, and danger to life, may and do dwell or lie hidden in matter impalpable, and that which is seemingly most inert and innocent, compelled and centered general attention inflexibly towards this point; and from this epoch dates the gospel of exacting cleanliness which is now preached and practiced with results that mean more positive good to susceptible, diseased or wounded in primitive matter resided the promise and the po humanity than any before recorded in the annals of medicine The forms, features, functions, aptitudes and belongings of these denizens of the lesser world are being searched out, studied and described by enthusiastic explorers with as much zeal and care as the fauna and flora of the larger world have been scrutinized and arranged in classes, families, etc , their true offices in nature, and precise relationship to man, either as helpful servants, harmless visitors or guests, or as invaders warring fiercely against the powers of his life, are likewise being closely studied and defined, with results that betoken increasing good, and only good, to the human race, and, also, to the animals that have been domesticated to serve the comforts and needs of man

---

[1] Read in the Section on State Medicine and Public Hygiene at the Thirty Sixth Annual Meeting of the American Medical Association.

Cleanliness of the body and physical sphere of the individual, in sickness or health, is godliness already attained in the flesh, the soap and water crusade long time proclaimed for the outward cleansing has no novelty, but the suggestion of a general systemic befouling of a country or community, and in the sick, wounded or lying in, through the medium of organisms filth born and bred and dirt borne, is much newer to the public mind, and the term dirt must needs be understood as being generic in nature, and comprising matter volatile as well as solid, aqueous as well as earthy

The effective warfare waged against dirt and its abounding mischievous offspring, in the fields of medicine, surgery and midwifery, began less than a generation ago, although the vital spirit of preceding generations had been influenced somewhat by the definite, but not widely concerted, efforts of those whose minds discerned the coming light, and whose faith and works were inspired and guided by clear perceptions of the dawning and desired era of skilled and accomplished hygiene If the statement be true that "crime is begotten by sin, and sin is begotten by disease, and disease is begotten by filth, and filth is begotten by ignorance," then truly the fulness of time has come for the revelation of the truth of the generally close and evil union of disease and dirt, in the average human body, to receive full recognition and general acceptance

The term cleanliness thenceforth took on a new and deeper meaning, for with no less regard paid to the palpable and external, it descended and penetrated to the minutiae in everything designed to cripple, baffle or destroy the clearly recognised existences whose survival was not compatible with safe or wholesome human living It searched the recesses of earth, air and water, to find and purge away every possible source of harm to man, singly or collectively, by physical forces, by mechanical means, by chemical agents, by forethought and afterthought, this warfare is being carried on, and cleanliness in a public health or surgical sense, no longer means a mere soaping and wiping of hands, or a whited and pleasing exterior, but a thoroughgoing radical safeguarding, from top to bottom, and from centre to circumference, of everything and everybody susceptible or liable to the invasion or influence of the emissaries of infection that proceed from either palpable dirt or invisible foulness

The memorable declaration made [illegible]ndall [illegible] tency of every form of life, may with confidence be paralleled by the assertion that sooner or later around, about, or within us, above us, or below us, there lurk or lie dormant, awaiting the time and soil and circumstance of their fit development, the seeds or agencies that have in themselves the promise and the potency of all the spreading or wasting ills, that tell most grievously against human health and life

The purport and the practice of cleanliness carries the sanitarian, the physician, the surgeon and the obstetrician alike into a realm towards whose inhabitants it is his conscientious duty to bear no message of peace or good-will The good of the individual and the public alike requires that no truce be declared in the conflict waged against the septic or noxious generations, issuing from material uncleanness of whatever sort, circumstance or degree To unsparingly lay waste the soil or breeding places that give birth or cradle to the active causes of the fevers and fluxes of persons and populations, and to urge others to do the same, is the bounden duty of every one whose knowledge or instincts that way lie To do less is to go back to darkened times in civilization and medicine, when human habits and customs favored the uprising of disease in many forms, while the light of to day compels every reasoning person to bestir himself and starve and slay whatsoever it may be, in lowly predatory form, that finds refuge, or power, or habitation in dirt, and issues thence to threaten may be his life, or to assail the integrity of his health or physical well being

How this may best be done, may not even yet be settled to the satisfaction of all, but fortunately, along with the recognition of the untoward influence of minute organisms upon individual or general health came a widening knowledge of means and measures useful and efficient to ward off or neutralize their hurtful power The employment of sewerage and other sanitary measures and methods in behalf of population health, was followed by the development and employment in all branches of medi
resources and expedients to protect the
patient or person from the bad effects o
begotten or nursed by the ho
or households Having w
cleanliness, in the full mo
the surgeon for example
and synovial surfaces
of evil result as the sk
approached by him a

The potency of clea
and destructive effect
of the living forms
man, its practice
forms of existence
because of his ign
The power of cle
is that mankind
ance and care, b
health and length
ment that will s
department of sc
erations and in
ig its legitim

OBSERVATIONS ON THE CAUSE AND TREATMENT OF INFANTILE ECZEMA AND ALLIED ERUPTIONS[1]

BY HENRY T BYFORD, M D,
OF CHICAGO

In the winter of 1880, I was called to attend Mrs R, in confinement with her fifth child Two of her other four had been born dead, the other two, born apparently healthy, had died in convulsions at the ages of three and ten months Both of the last had, before death, suffered from a scabby eruption, and become somewhat emaciated, but had not, as far as I could determine, been considered syphilitic The child born at this time was, at first, apparently healthy, but in a short time, broke out with an eruption that had the appearance of an ordinary eczema pustulosum, and which affected its scalp and different parts of its body The only other noticeable symptom was progressive emaciation

A physician seeing the child for the first time at the age of three weeks, would have been excusable, without the family history, in considering this a strumous case, and in treating it with cod liver oil Minute doses of calomel and mercurial inunctions quickly transformed the unsightly, emaciated sufferer into a healthy, well nourished infant

In the summer of 1876, I was called upon to treat a young child, Augustus G, with pustular eczema confined to the scalp, excessive nocturnal restlessness and progressive emaciation This being the first child, there being neither copper colored areolæ nor other characteristics of a syphilide, but for the acknowledgment of the father of a former but seemingly perfectly cured attack of syphilis (an acknowledgment not always made), mercurials would, as a rule, have been avoided by an attending physician Yet the eczema rapidly disappeared, and the infant was soon gaining in flesh upon calomel powders and mercurial inunctions

To contrast with these syphilitic cases, I wish to relate another in which I know there was no possibility of a syphilitic taint, as I had been in daily communication with the father for three years before his marriage, and have often treated his family since The patient, E H, one year old, was unusually fat and well nourished, and had an eczema on the head which spread over the body in patches, in spite of the prolonged local treatment of one of our most intelligent practitioners I recommended one fifth of a grain of calomel to be given twice a day, and an ointment composed of one dram of carbolic acid in an ounce of the oxide of zinc ointment After ten powders had been taken the eruption began to give up some of its area, and had almost disappeared by the time the thirty powders, first prescribed, were gone Soon afterwards the eruption began to spread again, but was promptly cured by more of the powders The child, having been overfed, was of course put upon a proper diet, by diluting the milk and infant food it was already taking, and withdrawing all other The child has since remained well

I have notes of a case of eczema, attended in 1880, in which the eruption extended to the eyelids, causing such conjunctival sensitiveness that the child lay motionless in its cradle, with its eyes bandaged by day and night Every attempt to move it or remove its bandages elicited either moans or screams I thought the child, which was a little over a year old, the most miserable one I had ever seen I prescribed quarter grain doses of calomel twice a day, to be given until they produced a laxative effect, then once a day only Carbolized oxide of zinc ointment (ʒj to ℥j) and a borax eye water were prescribed for external use Improvement did not take place until the powders had been taken regularly for several days, when it commenced, and, in a few days, rendered the little patient comfortable, and able to endure a moderate light When, later, the calomel treatment was neglected, the case relapsed, in spite of external applications, but a return to it soon cured the eruption, and improved the condition of the patient

Many other severe cases of the disease have come under my care, and whether the eruption confined itself to the head or ran all over the body, whether the patient was syphilitic or not, strumous or plethoric, they were all similarly affected by calomel When treated without this remedy, their recovery has usually been very slow, uncertain, and often temporary

It is an old popular belief, not utterly unfounded, I think, that the rapid drying up of these head eruptions by strong applications does some harm to the system, especially the nervous system With the aid of calomel and external applications, I have rapidly dried up scores of such head eruptions without having observed any but good results, and consider the coexisting digestive disorders as the causes of any head symptoms that may arise

The frequency of occurrence of eczema in infants, the large size and great activity of the liver in early life, and the striking, I might say specific, action of calomel have led me to associate liver indigestion with infantile symptoms of eczematous nature in the relation of cause and effect Even in many syphilitic cases the sallow complexion of the skin, and nocturnal restlessness, have seemed to indicate liver disorder of syphilitic origin In these cases, the alterative powders often produce an amelioration in the skin troubles, sooner than they could through their direct action upon the blood poison, and hence the mercury should be used so as to affect the liver as well as the blood

A properly regulated diet is necessary, and in some cases is all that need be recommended But the negative action of diet alone, and the increased debility that would, in the meantime, follow with strumous children, whose disordered and debilitated digestive organs would be slow to assume healthy, vigorous function, makes it very injudicious to wait for such action Some of my earlier cases were cured without any regulation of diet

While disordered digestion is usually considered an important factor in certain instances, and a regulated diet, with occasional laxative doses of mercury, are often advised, I know of no authority who has humanity than any before recorded in the annals of medicine. The forms, features, functions, aptitudes and belongings of these denizens of the lesser world are being searched out, studied and described by enthusiastic explorers with as much zeal and care as the fauna and flora of the larger world have been scrutinized and arranged in classes, families, etc., their true offices in nature, and precise relationship to man, either as helpful servants, harmless visitors or guests, or as invaders warring fiercely against the powers of his life, are likewise being closely studied and defined, with results that betoken increasing good, and only good, to the human race, and, also, to the animals that have been domesticated to serve the comforts and needs of man.

---

[1] Read before the Chicago Medical Society on August 17 1885

Cleanliness of the body and physical sphere of the individual, in sickness or health, is godliness already attained in the flesh, the soap and water crusade long time proclaimed for the outward cleansing has no novelty, but the suggestion of a general systemic befouling of a country or community, and in the sick, wounded or lying in, through the medium of organisms filth born and bred and dirt borne, is much newer to the public mind, and the term dirt must needs be understood as being generic in nature, and comprising matter volatile as well as solid, aqueous as well as earthy.

The effective warfare waged against dirt and its abounding mischievous offspring, in the fields of medicine, surgery and midwifery, began less than a generation ago, although the vital span of preceding generations had been influenced somewhat by the definite, but not widely concerted, efforts of those whose minds discerned the coming light, and whose faith and works were inspired and guided by clear perceptions of the dawning and desired era of skilled and accomplished hygiene. If the statement be true that "crime is begotten by sin, and sin is begotten by disease, and disease is begotten by filth, and filth is begotten by ignorance," then truly the fulness of time has come for the revelation of the truth of the generally close and evil union of disease and dirt, in the average human body, to receive full recognition and general acceptance.

The term cleanliness thenceforth took on a new and deeper meaning, for with no less regard paid to the palpable and external, it descended and penetrated to the minutiæ in everything designed to cripple, baffle or destroy the clearly recognised existences whose survival was not compatible with safe or wholesome human living. It searched the recesses of earth, air and water, to find and purge away every possible source of harm to man, singly or collectively, by physical forces, by mechanical means, by chemical agents, by forethought and afterthought, this warfare is being carried on, and cleanliness in a public health or surgical sense, no longer means a mere soaping and wiping of hands, or a whited and pleasing exterior, but a thoroughgoing radical safeguarding, from top to bottom, and from centre to circumference, of everything and everybody susceptible or liable to the invasion or influence of the emissaries of infection that proceed from either palpable dirt or invisible foulness.

The memorable declaration made by Tyndall that tency of every form of life, may with confidence be paralleled by the assertion that sooner or later around, about, or within us, above us, or below us, there lurk or lie dormant, awaiting the time and soil and circumstance of their fit development, the seeds or agencies that have in themselves the promise and the potency of all the spreading or wasting ills, that tell most grievously against human health and life.

The purport and the practice of cleanliness carries the sanitarian, the physician, the surgeon and the obstetrician alike into a realm towards whose inhabitants it is his conscientious duty to bear no message of peace or good-will. The good of the individual and the public alike requires that no truce be declared in the conflict waged against the septic or noxious generations, issuing from material uncleanness of whatever sort, circumstance or degree. To unsparingly lay waste the soil or breeding places that give birth or cradle to the active causes of the fevers and fluxes of persons and populations, and to urge others to do the same, is the bounden duty of every one whose knowledge or instincts that way lie. To do less is to go back to darkened times in civilization and medicine, when human habits and customs favored the uprising of disease in many forms, while the light of to day compels every reasoning person to bestir himself and starve and slay whatsoever it may be, in lowly predatory form, that finds refuge, or power, or habitation in dirt, and issues thence to threaten may be his life, or to assail the integrity of his health or physical well being.

How this may best be done, may not even yet be settled to the satisfaction of all, but fortunately, along with the recognition of the untoward influence of minute organisms upon individual or general health, came a widening knowledge of means and measures useful and efficient to ward off or neutralize their hurtful power. The employment of sewerage and other sanitary measures and methods in behalf of population health, was followed by the development and employment in all branches of medicine of resources and expedients to protect the individual patient or person from the bad effects of agencies begotten or nursed by the hoarded dirt of hospitals or households. Having well founded confidence in cleanliness, in the full modern meaning of the term, the surgeon for example may to day explore serous and synovial surfaces and cavities with as little fear of evil result as the skin, or mucous surfaces, were approached by him a generation ago.

The potency of cleanliness is shown by its wasting and destructive effect upon the sources and energies of the living forms that beset the health and life of man, its practice means annihilation to the many forms of existence that spring into noxious activity because of his ignorance, apathy or improvidence. The power of cleanliness being known, its promise is that mankind may, by increasing knowledge, vigilance and care, both in person and population, attain health and length of days unknown before—an achievment that will sufficiently vindicate the claim of this department of science, that increase in the span of generations and in physical capacity to enjoy life, are among its legitimate and appointed fruits and offspring.

OBSERVATIONS ON THE CAUSE AND TREATMENT OF INFANTILE ECZEMA AND ALLIED ERUPTIONS[1]

BY HENRY T. BYFORD, M.D.,

OF CHICAGO.

In the winter of 1880, I was called to attend Mrs. R., in confinement with her fifth child. Two of her other four had been born dead, the other two, born apparently healthy, had died in convulsions at the ages of three and ten months. Both of the last had, before death, suffered from a scabby eruption, and become somewhat emaciated, but had not, as far as I could determine, been considered syphilitic. The child born at this time was, at first, apparently healthy, but, in a short time, broke out with an eruption that had the appearance of an ordinary eczema pustulosum, and which affected its scalp and different parts of its body. The only other noticeable symptom was progressive emaciation.

A physician seeing the child for the first time at the age of three weeks, would have been excusable, without the family history, in considering this a strumous case, and in treating it with cod liver oil. Minute doses of calomel and mercurial inunctions quickly transformed the unsightly, emaciated sufferer into a healthy, well nourished infant.

In the summer of 1876, I was called upon to treat a young child, Augustus G., with pustular eczema confined to the scalp, excessive nocturnal restlessness and progressive emaciation. This being the first child, there being neither copper colored areolæ nor other characteristics of a syphilide, but for the acknowledgment of the father of a former, but seemingly perfectly cured attack of syphilis (an acknowledgment not always made), mercurials would, as a rule, have been avoided by an attending physician. Yet the eczema rapidly disappeared, and the infant was soon gaining in flesh upon calomel powders and mercurial inunctions.

To contrast with these syphilitic cases, I wish to relate another in which I know there was no possibility of a syphilitic taint, as I had been in daily communication with the father for three years before his marriage, and have often treated his family since. The patient, E. H., one year old, was unusually fat and well nourished, and had an eczema on the head which spread over the body in patches, in spite of the prolonged local treatment of one of our most intelligent practitioners. I recommended one fifth of a grain of calomel to be given twice a day, and an ointment composed of one dram of carbolic acid in an ounce of the oxide of zinc ointment. After ten powders had been taken the eruption began to give up some of its area, and had almost disappeared by the time the thirty powders, first prescribed, were gone. Soon afterwards the eruption began to spread again, but was promptly cured by more of the powders. The child, having been overfed, was of course put upon a proper diet, by diluting the milk and infant food it was already taking, and withdrawing all other. The child has since remained well.

I have notes of a case of eczema, attended in 1880, in which the eruption extended to the eyelids, causing such conjunctival sensitiveness that the child lay motionless in its cradle, with its eyes bandaged by day and night. Every attempt to move it or remove its bandages elicited either moans or screams. I thought the child, which was a little over a year old, the most miserable one I had ever seen. I prescribed quarter grain doses of calomel twice a day, to be given until they produced a laxative effect, then once a day only. Carbolized oxide of zinc ointment (ʒj to ℥j) and a borax eye water were prescribed for external use. Improvement did not take place until the powders had been taken regularly for several days, when it commenced, and, in a few days, rendered the little patient comfortable, and able to endure a moderate light. When, later, the calomel treatment was neglected, the case relapsed, in spite of external applications, but a return to it soon cured the eruption, and improved the condition of the patient.

Many other severe cases of the disease have come under my care, and whether the eruption confined itself to the head or ran all over the body, whether the patient was syphilitic or not, strumous or plethoric, they were all similarly affected by calomel. When treated without this remedy, their recovery has usually been very slow, uncertain, and often temporary.

It is an old popular belief, not utterly unfounded, I think, that the rapid drying up of these head eruptions by strong applications does some harm to the system, especially the nervous system. With the aid of calomel and external applications, I have rapidly dried up scores of such head eruptions without having observed any but good results, and consider the coexisting digestive disorders as the causes of any head symptoms that may arise.

The frequency of occurrence of eczema in infants, the large size and great activity of the liver in early life, and the striking, I might say specific, action of calomel have led me to associate liver indigestion with infantile symptoms of eczematous nature in the relation of cause and effect. Even in many syphilitic cases the sallow complexion of the skin, and nocturnal restlessness, have seemed to indicate liver disorder of syphilitic origin. In these cases, the alterative powders often produce an amelioration in the skin troubles, sooner than they could through their direct action upon the blood poison, and hence the mercury should be used so as to affect the liver as well as the blood.

A properly regulated diet is necessary, and in some cases is all that need be recommended. But the negative action of diet alone, and the increased debility that would, in the meantime, follow with strumous children, whose disordered and debilitated digestive organs would be slow to assume healthy, vigorous function, makes it very injudicious to wait for such action. Some of my earlier cases were cured without any regulation of diet.

While disordered digestion is usually considered an important factor in certain instances, and a regulated diet, with occasional laxative doses of mercury, are often advised, I know of no authority who has considered derangement of the liver, and its accompanying digestive disorders, as the chief predisposing cause, nor of one who has recommended calomel (or its equivalent of blue mass or mercury with chalk) as the chief remedy for the vast majority of cases In fact, most authors remind the reader that no one remedy can be generally relied upon

---

[1] Read before the Chicago Medical Society on August 17, 1885.

From the fact that many of my earlier cases got well without a regulated diet, that so much calomel produced such prompt relief, and that improved digestive power usually follows, rather than attends, the action of the remedy, I am led to believe that the cure is brought about, not merely by improvement in digestion, but by a removal of waste, irritating materials from the system, which are often the main exciting cause of the eruption And from the great efficiency of mercurial over other laxatives, I believe that the irritating materials are not only in the retained fæcal matter but also in the blood—the products of imperfect digestive assimilation and excretion There is no doubt that mercurials do much to clear up the urine and to restore normal ingredients to the fæces

Occasional doses of phosphate of sodium, and other saline aperients, act in a similar way, but much less promptly And the same may be said of castor-oil, which has proved efficacious in the hands of L Duncan Bulkley (JOUR AM MED ASSOC, July 25)

The strumous and nervous conditions so often observed may, I think, be the causes or effects of the disordered digestive organs, but are seldom the direct causes of the eruptions Even the beneficial action of cod liver oil is explainable upon dietetic principles, for pure oil is a much more proper and natural aliment for young children than oatmeal, potatoes, fresh bread, stale cow's milk, and many other table articles of diet that are daily imposed upon their immature stomachs This oil helps, like castor oil, to remove fæcal accumulations With infants fat is a normal ingredient of the healthy fæces

My excuse for ever resorting to such heroic dosing with calomel, was that a large proportion of my severe cases was traceable to a syphilitic origin, and noticing that these cases bore the remedy so well, I began to try it where I only suspected syphilis, and finally in all cases I have usually given from a quarter to an eighth grain powder, according to the age, twice a day, leaving directions that they should be discontinued as soon as purgation commenced, and afterward given as often as the bowels would tolerate them without much disturbance Their effect, more than the age of the patient, determines their size and frequency of administration

As children over two and one-half years are very liable to be salivated, I usually give them a single purgative dose of calomel every six or eight days, and trust to diet and other remedies in the meantime For instance, I was called two years ago to see a boy four years old suffering with patches of eczema about the head and upper part of body, who, although under active medical treatment, had been in about the same condition for several months, except that he was getting worse While poorly nourished and pale, he was a hearty eater, and was fed upon eggs, potatoes, oatmeal and other stimulating food, with fruit sufficient to keep the bowels regular I ordered two grains of calomel to be given at bedtime, and some powders containing each one gr of ext of pancreas (F Bros & F), three grs of bicarb of sodium, and eight grs of subnitrate of bismuth one before each meal The diet was restricted to milk, beef extract, bread, toast, crackers, rice and fruits In six days, finding some improvement, I ordered the same medicines and diet In a week more I found him greatly improved in general health and partly rid of the rash Recovery was uninterrupted, rapid and permanent, the parents having in the meantime learned how to feed him

Acute cases may, of course, be greatly benefited by protecting the inflamed skin from all external irritation This may be done by keeping it constantly covered by simple cerate purified by a few grains of carbolic or salicylic acid to the ounce, or by vaseline, the object being, as already stated, to protect, not to medicate, the skin In chronic cases, I know of nothing that will allay the itching and stimulate the skin to healthy action as quickly as an ointment composed of one dram of carbolic acid to the ounce of oxide of zinc ointment, constantly applied I have used this formula in nearly all chronic cases, and have found the combination soothing instead of irritating

That I am somewhat out of fashion with my calomel I will admit In one of our latest and best exponents of the present state of dermatological science, I find the following sentence "Lastly, patients of both classes (of eczema) are to be saved from mercury, arsenic and iodide of potassium" I can only offer as my excuse, that I have found the treatment under consideration almost uniformly successful, and that I would like to do what little I can to aid others in simplifying the management of this most fickle of all diseases, in finding the centre of this Chinese puzzle of dermatology

Finally, I would like to say that I do not think it really best to treat the majority of cases in this heroic manner, being usually forced into it by the critical impatience of parents and friends, or by the impossibility of securing a prolonged and intelligent attention to the diet I would also like to remind any who may chance to thus prescribe calomel, that unless they give it with a proper understanding of the conditions and requirements of the case, they will be just as apt to fail with it as druggists and nurses are apt to fail in curing malaria with quinine, and much more liable to do injury

3100 Forest Ave

FEMALE EDUCATION FROM A MEDICAL STANDPOINT[1]

BY S H HAMILTON, M D,

OF MONMOUTH ILL

The human organization ought to be, and under favoring circumstances is, much like unto a well constructed and well-regulated piece of machinery, each part of it performing its function by drafts of power upon the nerve centres sufficient for its wants. The central power should be in exact proportion to the demands of all the parts, each of which should bear a just co-relation to every other, thus securing a just division of labor, and a machine-like accuracy of movement, constituting what we see *sometimes*, perfect health. *Mens sana in corpore sano.* This perfectly developed and perfectly acting human machine is but rarely met with, from a variety of causes, some of which reach far back in the embryonic stage of existence, where the hereditary weaknesses and imperfections are no doubt stamped upon the very germ of life, and follow it to the death. Added to these hereditary causes of imperfect development, which are beyond our control, are a host of others brought about by careless management of this complex machine during its period of growth, and after maturity, which are amenable to intelligent care and professional treatment.

---

[1] Read before the Military Tract (Ill) Medical Society May 12 1885

The sexual system of woman, up to about the fourteenth year of her age (more or less) is but little beyond the embryonic state, and practically exercises no influence over her general organization. The next four or five years form an epoch in her life full of danger to her future health and happiness.

This complex group of organs must obtain, if at all, its complete development within this period. If from any cause it is sought to be deferred to a more convenient season, the golden opportunity is forever lost. The woman remains for the rest of her life a maimed creature. The responsibilities and burdens of womanhood come upon her all unprepared, and she is destined to the miserable existence of an invalid. It is not held that all sexual maladies are caused by imperfect development. Lack of intelligent care during the menstrual nisus, vicious habits, bad management in child-bed, and many other causes, produce similar results. It seems clear, however, that a very large percentage of these diseases are directly traceable to an imperfectly developed sexual system, favored by an imperfect and ill-timed system of education. Imperfect, because that the knowledge necessary for the proper care of her life as a woman cannot in the nature of things be imparted. Ill-timed, because that severe mental labor at the period required cannot be indulged in without serious injury to physical health.

I do not believe that intellectual culture necessarily dwarfs the reproductive faculty in women but it seems quite clear that it does so, obtained, as it is under our present system of education. Statistics all over the land, especially in the New England States, reveal the alarming fact that the increase of population is entirely in the lower and uneducated classes of society. The vicious, the ignorant, and the poverty-stricken hordes from over the water are multiplying rapidly, whilst the better part of our people, those most valuable to the State and society, are actually decreasing year by year. Small families or no children, is the rule among educated people.

That this deplorable condition of things is chargeable largely to our present system of education for girls, seems clear to any careful observer of its workings. There is no way of accounting for the extreme laxity in morals, and apparent recklessness of bodily injury, pervading the so-called educated class of society, than on the hypothesis of extreme ignorance. The unnatural and disgusting means of one kind or another preventive of conception, the wide-spread habit of producing abortions in the early stages of fœtal life, are surely oftener chargeable to lack of information than downright wickedness.

Co-education of the sexes, which means "identical education," under our present high school and college system, is entirely unsuited to anything like proper education for girls. It does seem like the very essence of folly to set up a common system of training, for two sets of human beings, so essentially different, in both their physical and moral needs. It is admitted that as much of mental culture as is consistent with good health, is especially required for women. The welfare and improvement of the race demand it, the happiness and comfort of both sexes require it, and it is a well established fact in the physiology of generation, that children, male or female, inherit the intellectual faculties of the mother rather than the father. Mental discipline acquired in the schools is as necessary for women as for men, but it should not be forgotten that the most important to them of all studies is the study of *themselves* as *women*, so that they may cooperate with, and intelligently use, all the necessary appliances to secure a full and healthful development of the sexual system, take proper care of the same, and be able to meet and solve correctly the various moral questions growing out of her duties as wife and mother. I know that in these days of *womanish men* and *mannish women* it has become almost a crime to talk even in a whisper about the true "sphere of woman" being confined to the so-called "narrow limits of home." Nevertheless, we will take the risk of saying, what all observation proves to be true, that just so soon as she steps outside the charmed circle of her duties as wife and mother, and wilfully neglects their fulfilment, she throws away her best chance for a happy and useful life.

The best education for girls, then, is that which best prepares them for the legitimate duties of womanhood. The time selected for its accomplishment should be chosen, and the thoroughness of the course regulated, so as to be consistent with good physical health. High intellectual culture, valuable as it is, and so much to be desired, costs too much when the price paid for it is a ruined or greatly damaged physical constitution.

The sexes are essentially different intellectually as well as physically. Extreme nervous impressibility, the strong reflex movements from the sexual system upon the intellectual nerve centres, in health and disease, the notable lack of the logical faculty, as well as muscular power, show conclusively that the requirements in the education of the female are widely different from the opposite sex, and that a system such as ours, framed as it is specially for the boy, is unsuited to the girl. She is practically cut off from the most useful of all studies, to her, minute sexual anatomy and physiology, for it is plain to any one, that these subjects cannot be properly and effectively taught to mixed classes of boys and girls Our system, as it is now framed to suit the boy, tends to *unsex* the girl If changed to suit the girl, it would unsex the boy A hybrid system would be unfit for either, and dwarf the strong characteristics of both A plan of education should be devised for each, *non-identical* and unlike, as the non identity and *unlikeness* of the mental and physical lives of the parties Our objection to identical, or, as it is called "co education" for girls, is not limited to considerations of the kind or quality of instruction they receive As before said, it is a plan of instruction elaborated specially for the boy

As a rule, girls enter high school or college about the time, or shortly after the commencement of the epoch of puberty At this time, the whole physical and intellectual being is strongly impressed by the rapid development just begun The vital forces of the body are largely employed in building up this most important portion of the human anatomy The growth of bone and muscle ceases, or is greatly retarded for the time Deposit of fat is made in the subcutaneous cellular tissue, giving to her face and figure that roundness, and softness of outline, so attractive to all who look upon her She becomes easy and self possessed in her manners, and graceful in her movements Everything about her shows that important changes are rapidly going on in her mental and physical organization, the interruption of which must be attended with peril The nerve centres are no doubt, during this time of active development, using all their surplus nerve force in this work Is it safe to subject the girl at such a time to hard and continuous intellectual labor?

It is a well established fact that brain work uses up the vital forces of the body much faster than muscular exertion, and to divert this nerve power largely from interstitial growth to mental labor, can have but one result, partial or complete arrest of the building-up process in the other direction, and if continued, the foundation is laid for long years of suffering, suffering from the vain efforts of a half formed organ to perform the duties of one fully grown "Nature can be helped or hurt, but rebels against entire suppression" The time for the education of girls established by a well grounded, but erroneous public sentiment, and by all-powerful fashion, is the most improper possible, considering their physical needs Ambitious mothers are anxious to have their daughters married at twenty (and the daughters generally concur) A good education (so called), and *accomplishments*, must be obtained against that time, be the consequences what they may As a rule, the result is, greatly impaired or permanently ruined health, a life of sterility, general unhappiness, and uselessness

It is not held that *all* female graduates of our co educational institutions are ruined thereby in physical health A few escape unhurt Many are badly injured, many ruined for life Enough damage is done year by year, to excite the gravest alarm, and the subject ought to elicit the best thought, and the serious attention of the community

With co education as a fixture any reform, in the range of possibility, can only be palliative The system is wrong from foundation to turret, and no amount of patching can make it perfect nor strip it of all its evils Nevertheless something might be done, in the way of improvement As thus Let the girls learn all they can in school, whilst they are children Then so soon as the first signs of approaching puberty appear, withdraw them at once from close application to study Let them learn domestic economy, and for this purpose, the kitchen is a rich mine of useful knowledge They should learn sewing, plain and ornamental, embroidery, music, read the daily papers, and other well selected light literature, and, above all, should take plenty of fresh air, moderate outdoor exercise, and good food Then when girlhood has given place to womanhood, the functions of ovulation and menstruation fully established, the muscular and bony structures up to their maximum of growth, then let her take two or three years of earnest, solid work, in school She will be better educated thus, and better equipped at the same time for the great duties of her life, those growing out of her surroundings as wife and mother This seems to us the best that could be done with cooperation, but the system is intrinsically faulty, in that it takes no notice of, and makes no provision for the most important fact that girls are unfitted, by the claims of exacting nature for mental labor, as a rule, about one fifth of the time They cannot work effectively, nor safely, during the menstrual period, and yet "co education" requires of them, during this period of disability, the same work exacted from the boys, who are not so disabled

Radical reform of these grave faults, in our really meritorious system of education, will be found in "schools for girls," founded upon correct physiological principles, where the girl will be recognized, and the peculiar mental and physical needs of her organization provided for One such school at least, has been in operation for several years with admirable success

Let us hope then, as it is not an experiment, but a well digested, and well tried enterprise, founded upon the soundest reason, it will hereafter be an important factor in the solution of our educational problem

MEDICAL PROGRESS

ANATOMY AND PHYSIOLOGY

HEMIALBUMOSE OR PROPEPTONE —Another one of the proteid substances sometimes found in urine, and to which increased attention has been called by reason of the introduction of the so called delicate tests for albumen, is hemialbumose

This substance is an intermediate product in the conversion of albumen into peptone, in the act of gastric digestion It is therefore abundantly present along with albumen in the gastric contents, and, unlike peptone, is also found in the blood during digestion It is identical with the albuminous substance known as Bence Jones's albuminous body or Mulder's proteindeutoxyd found by Virchow in the bone marrow in osteomalacia, and by Fleischer in normal bone marrow

Hemialbumose, like albumen, is insoluble in alcohol, also insoluble in pure water, but very soluble in water containing only traces of acids, alkalies, or salts It is not precipitated by heat from its watery solutions as is albumen, but if the solution be made strongly acid and concentrated salt solution be added thereto, it is precipitated If the cloudy fluid be now heated it becomes transparent, but again turbid on cooling A further large addition of salt maintains the precipitate in spite of heating It is precipitated by pure nitric acid, but redissolved with the production of an intense yellow color on heating, and reprecipitates on cooling An excess of nitric acid redissolves the precipitate even in the cold, with the production of the same orange red color

In these respects hemialbumose differs strikingly from both peptone and albumen It is like peptone in that it exhibits the biuret reaction with an alkali and salt of copper, and like albumen in that it is precipitated by acetic acid and ferrocyanide of potassium

In order to test the presence of hemialbumose the albumen must first be removed This is accomplished by acidifying the urine with a few drops of acetic acid, adding about ⅙ its volume of concentrated salt solution, boiling and filtering off the precipitate The filtrate is then allowed to cool, and if a turbidity arises or is produced by the further addition of salt solution, which disappears by heating, and reappears with cold, propeptone is present

Hemialbumose is removed from fluids by adding acetate of iron and boiling, or by boiling with hydrated lead oxide

Hemialbumose was first found in urine by Macynter and Bence-Jones, in the disease known as osteomalacia, and by Lassar in artificial nephritis —*Medical News*, Aug 15, 1885

MATERIA MEDICA AND THERAPEUTICS

Jequirity in Lupus Exedens and other Chronic Ulcerations —Dr Arthur Hawies gives the following as his experience

The berries are macerated for 24 hours to soften the husks, which are then carefully picked out after bruising in a mortar The remainder is crushed with half its weight of glycerine and three times its weight of water, until a *smooth paste* is produced This is plastered thickly over the diseased surface and retained in position by a piece of beef After 24 hours the patient begins to complain of malaise, with slight thirst and some quickening of the pulse, these symptoms lasting 48 hours, never less There is scarcely any increase of temperature (in one case the temperature rose to 100 5° on the third day after application)

On the third day suppuration has commenced, and an unpleasant smell from the dressing is perceptible On the fourth day and subsequently, the suppuration is more profuse, the *smell* is very marked, to the extent of necessitating the placing of deodorants in the ward and in the neighborhood of the patients, the malaise disappears, and the patient's appetite improves in spite of obvious inconveniences

On the tenth day the dressing is removed, a healthy granulating surface is exposed, having the following peculiarities The circumference is diminished by about one-third, the new skin at the margin exhibiting the typical bluish tint of a healing ulcer, and from the sides of the sore a little promontory of new, healthy tissue is seen attempting to reach a fellow projection on the opposite margin The appearance of this new tissue is like that of the margins After two or three days' dressing with a simple astringent lotion (in his cases consisting of the potassio tartrate of iron dissolved in water, gr iv ad ℥j), these projections have coalesced, thus bisecting the original sore, while the edges of each part continuing to granulate healthily, the isthmus becomes broader, the sore surfaces smaller, until, at the end of about ten days after removal of the dressing, a fairly sound surface is left

He has not found the treatment applicable to dry tuberculous conditions of the skin, even after scraping, so as to present a raw surface to the action of the remedy The pus escaping from the dressing swarms with bacilli, but Dr Hawies is not prepared to state whether they are active factors in the healing process, or whether they are present merely as concomitants of the conditions of application of the dressing

In jequirity he is convinced that we have a treatment of great value in *chronic* ulcerative conditions, and he certainly thinks it worth trying in rodent ulcer, and possibly even in epithelioma Jequirity should not be used in recent ulcerations—in them action is already too marked, and his experience of one case treated by a colleague has been that it caused extension rather than diminution of the sore surface —*Provincial Medical Journal*, Aug 1, 1885

Iodoform in Gout —Professor Testa (*Gazz Med di Torino*, 1885), having previously ascertained experimentally that iodoform fulfilled the requirements of a remedy for gout, *i e*, that it accelerated oxidation processes within the system, increasing the excretion of urea, and diminishing that of uric acid and oxalic acid, tried it in seven cases of gout and continued the use of the drug for months together The dose varied from 7 to 25 cgrm daily, given in two doses The remedy exercised on the whole a very favorable effect The attacks became less frequent, and their intensity and duration were diminished He thinks its use is contra indicated, or, at least, that it should be given with extreme caution, when the gout is complicated with kidney disease, as, in case it is not duly eliminated by the kidneys, accumulation of it in the system might lead to serious results —*The Medical Press*, July 1, 1885

MEDICINE

Diabetes Mellitus Cured by Removal of the Uterine Appendages —Dr Francis Imlach reports the following interesting case

K G, a widow, aged 31, consulted me on February 12, 1885, on account of leucorrhœa and pelvic pain A diagnosis of pyosalpinx was made out, and, as she seemed ill and wasted, operative treatment was suggested On the 22d, she mentioned that for a month she had been afflicted with insatiable thirst and sleeplessness, that the bowels were habitually constipated, and the urine greatly increased in quantity On testing a sample of urine, of specific gravity 1036, no albumen was found, but, on boiling with Fehling's solution, it became evident that she was passing sugar Menstruation was regular, and, though painful, not profuse All thoughts of operation were abandoned She undertook to live upon gluten-bread and biscuits, fish, meat, and buttermilk, to give up starchy food and sugar, and as much as possible to restrict her drink Soap-and-water enemata were ordered, and bromide of ammonium prescribed for the sleeplessness Under this treatment, the urine became reduced (from an unknown quantity) to five or six pints *per diem*, but, when samples were tested with Fehling's solution and by the differential density method, there was little diminution in the sugar On March 16, three minims thrice daily of Clemens's solution of arseniate of bromine were substituted for the bromide of ammonium, and, a fortnight later, the dose was increased to ten minims, but, roughly estimated, the excretion of sugar continued unaltered On April 15, she passed 2,560 grains in 24 hours As she was becoming rapidly weaker and more emaciated, she was admitted into hospital on May 15, where the anti-diabetic diet was strictly maintained On May 16, 1,200 grains of sugar were excreted On May 19, the uterine appendages were removed The right Fallopian tube was thickened in its walls, occluded at both ends, and distended with pus The left tube was thickened, but not occluded at its fimbriated extremity, and contained only a little muco-pus Both ovaries were so firmly adherent in the pelvis, that their removal was somewhat difficult The fundus of the uterus, which was bound by dense adhesions to the sacrum, was liberated The patient recovered without a bad symptom, and with a surprisingly level temperature-chart She got out of bed on the ninth day, and left hospital on June 3 Unfortunately, I am unable to add a complete account of the urine passed subsequent to the operation, as, through an error, no quantitative measurements of the sugar were made During the first 24 hours, between six and eight ounces of urine containing sugar were drawn off every six hours The specific gravity during the first six hours was 1028, next it fell to 1014, and then rose to 1034

The sugar, tested daily with Fehling's solution, gradually diminished until May 26, when it finally disappeared On June 12, the urine was normal, and of specific gravity 1020 For a week previously she had been at home on ordinary fare, except that she took no rice-pudding, and put no sugar in her tea She then took rice-pudding daily, with unlimited sugar, until June 19, when the specific gravity of the urine was 1010, and not a trace of sugar could be detected There is no longer constipation, and her strength is already almost completely restored

Glycosuria being persistent under anti-diabetic regimen, and the health worse, operation was offered as a forlorn hope Sir J Paget makes no allusion to diabetes mellitus among "the various risks of operations," but Dr Dickinson, in his able work on the subject, says that "surgery is attended with unusual danger," and Dr Wm Roberts states that "operations for diabetic cataract generally fail from uncontrollable suppuration of the eyeball" Beyond this element of danger, there was the fear lest the operation should do no good Diabetes and pyosalpinx are not known in association The patient was married ten years previously, had a still born child a year later and became a widow two years before I saw her As the pelvic pain was of indefinite origin, the pyosalpinx was probably of ancient date, whereas the diabetic symptoms were recent Still, there remained the possibility that removal of the suppurating tubes might cure the disease There was a further argument the younger the person, the less hope of ultimate recovery from diabetes "The development and exercise of the sexual functions," says Dr Wm Roberts (Renal Diseases, 4th ed , p 256), "appear to have a marked effect in increasing the liability to diabetes in both sexes, and the diminished frequency of the disease in women after the age of 45 (as compared with men) corresponds with the earlier decline of sexual activity in the female sex" And not only is diabetes less frequent among women after 45, it is also less acute, and does not kill nearly so quickly By induction of the menopause, it was hoped that the acute diabetes might become chronic —*British Med Journal*, July 11, 1885

SALICYLIC ACID IN RHEUMATISM —DR P W LATHAM, the Downing Professor of Medicine at Cambridge, in an article entitled "Why does Salicylic Acid Cure Rheumatism," lays down seven rules for its successful administration

First, the true salicylic acid obtained from the vegetable kingdom must alone be employed If you have to give large doses, avoid giving the artificial product obtained from carbolic acid, however much it may have been dialysed and purified An impure acid will very quickly produce symptoms closely resembling delirium tremens

Secondly, give the acid without any alkaline base A very good form is to mix 100 grains with 15 of acacia powder and a little mucilage Allow the mass to stand and harden, and then divide into 30 pills

Thirdly, place the patient fully under the influence of the drug—that is, let him have sufficient to produce cerebral disturbance—*i e*, buzzing in the ears or headache, or slight deafness, with the development of these symptoms the temperature and the pain in the joints will begin to decline To an adult he generally administers three doses of 20 grains (six pills), at intervals of an hour, and if the head remains unaffected, a fourth dose at the end of another hour, and then repeat the 20 grains every four hours until the physiological effect of the remedy shows itself In the majority of cases, from 80 to 100 grains are enough In severe cases, 140 to 150 may be required Afterwards about 80 grains a day are sufficient, and as the temperature declines, smaller quantities will develop their physiological effects, 60 or even 50 grains being then sufficient to produce cerebral disturbance It would appear that as long as the rheumatic poison is circulating in the system, the physiological effect—that is, the effect it produces in the healthy organism—does not show itself; acting as an antidote, the greater the amount of poison, the larger must be the dose of the remedy; but as soon as the formation of the *materies morbi* is stopped, then the excess of the remedy acts as it would in the healthy organism, and its peculiar physiological effects are developed. It is a very striking illustration of the difference between the therapeutical effect of a remedy, and its physiological action.

Fourthly, give the patient from 40 to 80 grains daily for ten days, after all pain and pyrexia have passed away.

Fifthly, let the patient's diet consist entirely of milk and farinaceous food for at least a week after the evening temperature has been normal. On the other hand, if the patient has meat and soup, you may look forward with fair probability to a relapse.

Sixthly, take care to maintain a daily and complete action of the bowels. Calomel is the best purgative, from 2 to 5 grains at night, followed in the morning, if necessary, with a saline draught. This is the most important adjuvant to the action of salicylic acid.

Seventhly, let the patient be enveloped in a light blanket, and with no more bedclothes than are sufficient to keep him from feeling cold. The object of the treatment now is to cool the patient, not, as in former times, to sweat the poison out of him, and the cooler he is kept the sooner will the temperature be lowered.

Dr. Latham has not yet concluded his observations, but so far he considers that though lactic acid has much to do with the symptoms, it is the excessive formation of glycocine and of uric acid in the tissues that develops the symptoms of rheumatic fever, and salicylic acid cures the disease by combining with the antecedents of these bodies, and prevents their formation. When salicylic acid is administered internally it passes off by the urine as salicyluric acid—that is, it has combined in its passage through the system either with glycocine or its antecedent, for on treating salicyluric acid with fuming hydrochloric acid, it is resolved into salicylic acid and glycocine. Consequently, in the system, by seizing either upon glycocine or its antecedent, salicylic acid takes away an essential constituent of uric acid, and so prevents the formation of this body.—*Lancet*, June 20, 1885.

EXTERNAL APPLICATION OF NITRATE OF SILVER IN SPINAL IRRITATION.—Krug recommends the local application of a weak solution of nitrate of silver against spinal irritation as preferable to the solid stick or the powder. He orders a one per cent. solution in alcohol, and directs its application not only to the seat of pain, but also to the whole neighborhood twice daily. The alcoholic solution has the advantage of allowing of a deeper penetration of the silver into the tissues, and of thus producing a sort of local anæsthesia by causing coagulation of albumen and abstracting water. Krug praises the beneficent and cooling effects of this procedure, which but rarely causes inflammatory irritation. He insists, however, that the treatment should be continued for weeks and months. Cold water compresses applied at night increase the usefulness of the silver application. This local treatment, of course, is to be regarded only as supplementing suitable internal medication.—*Schmidt's Jahrb.*, ix. 203.—*Therapeutic Gazette*, June, 1885.

DIAPHORETIC TREATMENT OF NEPHRITIS.—N. HESS, having made a number of observations on the treatment of nephritic patients by wet packs, hot baths supplemented by wrapping in blankets, and hot air baths, draws the following conclusions:

(1) The least rise of temperature occurs with packs, the greatest with hot baths.

(2) While the temperature is found to sink still further twenty minutes after the pack, it remains at the same height for an hour after both the other methods of treatment.

(3) After water baths the temperature regains its original height more slowly than after air baths.

(4) During the pack the pulse becomes slower; during the water and air baths, on the contrary, it is quickened for an hour afterwards.

(5) Under the influence of the pack respiration is moderately quickened; during both water and air baths it is still more quickened, but subsequently returns to its normal rate more rapidly than after the pack.

(6) The most powerful sudorific effects are produced by hot baths, the least powerful by packing.

(7) Though the baths are more stimulating, packing soothes the action of the nervous system, brings the patients on better, and produces a subjective feeling of improvement afterwards.—*Lancet*, June 27, 1885.

SHOCK AND ITS TREATMENT.—In a critical study of shock intended to elucidate its pathological relations, GRONINGER, of Berlin, defines shock as an exhaustion of the medulla oblongata and the spinal cord produced by violent excitation. This definition is no doubt perfectly proper, though it strikes us as if the term "exhaustion" is not sufficiently clear for defining purposes.

He recognises the following varieties:

1. The lowest grade of shock, which causes no appreciable effects.

2. A middle grade, which weakens sensation.

3. A high grade, which extinguishes qualitative sensation.

4. A highest grade, which eradicates both passing and permanent sensations of every kind.

His views of the treatment are noteworthy.

Energetic counter-irritations of the skin are to be excluded as useless and even dangerous.

Abstraction of blood is contraindicated.

Transfusion of blood can only be thought of in cases of great loss of blood.

Opium and chloroform are of no value whatever in shock, while digitalis is worthy of further study.

month she had been afflicted with insatiable thirst and sleeplessness, that the bowels were habitually constipated, and the urine greatly increased in quantity. On testing a sample of urine, of specific gravity 1036, no albumen was found, but, on boiling with Fehling's solution, it became evident that she was passing sugar. Menstruation was regular, and, though painful, not profuse. All thoughts of operation were abandoned. She undertook to live upon gluten-bread and biscuits, fish, meat, and buttermilk, to give up starchy food and sugar, and as much as possible to restrict her drink. Soap-and-water enemata were ordered, and bromide of ammonium prescribed for the sleeplessness. Under this treatment, the urine became reduced (from an unknown quantity) to five or six pints *per diem*, but, when samples were tested with Fehling's solution and by the differential density method, there was little diminution in the sugar. On March 16, three minims thrice daily of Clemens's solution of arseniate of bromine were substituted for the bromide of ammonium, and, a fortnight later, the dose was increased to ten minims, but, roughly estimated, the excretion of sugar continued unaltered. On April 15, she passed 2,560 grains in 24 hours. As she was becoming rapidly weaker and more emaciated, she was admitted into hospital on May 15, where the anti-diabetic diet was strictly maintained. On May 16, 1,200 grains of sugar were excreted. On May 19, the uterine appendages were removed. The right Fallopian tube was thickened in its walls, occluded at both ends, and distended with pus. The left tube was thickened, but not occluded at its fimbriated extremity, and contained only a little muco-pus. Both ovaries were so firmly adherent in the pelvis, that their removal was somewhat difficult. The fundus of the uterus, which was bound by dense adhesions to the sacrum, was liberated. The patient recovered without a bad symptom, and with a surprisingly level temperature-chart. She got out of bed on the ninth day, and left hospital on June 3. Unfortunately, I am unable to add a complete account of the urine passed subsequent to the operation, as, through an error, no quantitative measurements of the sugar were made. During the first 24 hours, between six and eight ounces of urine containing sugar were drawn off every six hours. The specific gravity during the first six hours was 1028, next it fell to 1014, and then rose to 1034.

The sugar, tested daily with Fehling's solution, gradually diminished until May 26, when it finally disappeared. On June 12, the urine was normal, and of specific gravity 1020. For a week previously she had been at home on ordinary fare, except that she took no rice-pudding, and put no sugar in her tea. She then took rice pudding daily, with unlimited sugar, until June 19, when the specific gravity of the urine was 1010, and not a trace of sugar could be detected. There is no longer constipation, and her strength is already almost completely restored.

Glycosuria being persistent under anti-diabetic regimen, and the health worse, operation was offered as a forlorn hope. Sir J. Paget makes no allusion to diabetes mellitus among "the various risks of operations," but Dr. Dickinson, in his able work on the subject, says that "surgery is attended with unusual danger," and Dr. Wm. Roberts states that "operations for diabetic cataract generally fail from uncontrollable suppuration of the eyeball." Beyond this element of danger, there was the fear lest the operation should do no good. Diabetes and pyosalpinx are not known in association. The patient was married ten years previously, had a still-born child a year later and became a widow two years before I saw her. As the pelvic pain was of indefinite origin, the pyosalpinx was probably of ancient date, whereas the diabetic symptoms were recent. Still, there remained the possibility that removal of the suppurating tubes might cure the disease. There was a further argument: the younger the person, the less hope of ultimate recovery from diabetes. "The development and exercise of the sexual functions," says Dr. Wm. Roberts (Renal Diseases, 4th ed., p. 256), "appear to have a marked effect in increasing the liability to diabetes in both sexes, and the diminished frequency of the disease in women after the age of 45 (as compared with men) corresponds with the earlier decline of sexual activity in the female sex." And not only is diabetes less frequent among women after 45, it is also less acute, and does not kill nearly so quickly. By induction of the menopause, it was hoped that the acute diabetes might become chronic.—*British Med. Journal*, July 11, 1885.

SALICYLIC ACID IN RHEUMATISM.—DR. P. W. LATHAM, the Downing Professor of Medicine at Cambridge, in an article entitled "Why does Salicylic Acid Cure Rheumatism," lays down seven rules for its successful administration.

First, the true salicylic acid obtained from the vegetable kingdom must alone be employed. If you have to give large doses, avoid giving the artificial product obtained from carbolic acid, however much it may have been dialysed and purified. An impure acid will very quickly produce symptoms closely resembling delirium tremens.

Secondly, give the acid without any alkaline base. A very good form is to mix 100 grains with 15 of acacia powder and a little mucilage. Allow the mass to stand and harden, and then divide into 30 pills.

Thirdly, place the patient fully under the influence of the drug—that is, let him have sufficient to produce cerebral disturbance—*i. e.*, buzzing in the ears or headache, or slight deafness, with the development of these symptoms the temperature and the pain in the joints will begin to decline. To an adult he generally administers three doses of 20 grains (six pills), at intervals of an hour, and if the head remains unaffected, a fourth dose at the end of another hour, and then repeat the 20 grains every four hours until the physiological effect of the remedy shows itself. In the majority of cases, from 80 to 100 grains are enough. In severe cases, 140 to 150 may be required. Afterwards about 80 grains a day are sufficient, and as the temperature declines, smaller quantities will develop their physiological effects, 60 or even 50 grains being then sufficient to produce cerebral disturbance. It would appear that as long as the rheumatic poison is circulating in the system, the physiological effect—that is, the effect it produces in the healthy organism—does not show itself, acting as an antidote, the greater the amount of poison, the larger must be the dose of the remedy, but as soon as the formation of the *materies morbi* is stopped, then the excess of the remedy acts as it would in the healthy organism, and its peculiar physiological effects are developed. It is a very striking illustration of the difference between the therapeutical effect of a remedy, and its physiological action.

Fourthly, give the patient from 40 to 80 grains daily for ten days, after all pain and pyrexia have passed away.

Fifthly, let the patient's diet consist entirely of milk and farinaceous food for at least a week after the evening temperature has been normal. On the other hand, if the patient has meat and soup, you may look forward with fair probability to a relapse.

Sixthly, take care to maintain a daily and complete action of the bowels. Calomel is the best purgative, from 2 to 5 grains at night, followed in the morning, if necessary, with a saline draught. This is the most important adjuvant to the action of salicylic acid.

Seventhly, let the patient be enveloped in a light blanket, and with no more bedclothes than are sufficient to keep him from feeling cold. The object of the treatment now is to cool the patient, not, as in former times, to sweat the poison out of him, and the cooler he is kept the sooner will the temperature be lowered.

Dr. Latham has not yet concluded his observations, but so far he considers that though lactic acid has much to do with the symptoms, it is the excessive formation of glycocine and of uric acid in the tissues that develops the symptoms of rheumatic fever, and salicylic acid cures the disease by combining with the antecedents of these bodies, and prevents their formation. When salicylic acid is administered internally it passes off by the urine as salicyluric acid—that is, it has combined in its passage through the system either with glycocine or its antecedent, for on treating salicyluric acid with fuming hydrochloric acid, it is resolved into salicylic acid and glycocine. Consequently, in the system, by seizing either upon glycocine or its antecedent, salicylic acid takes away an essential constituent of uric acid, and so prevents the formation of this body.—*Lancet*, June 20, 1885.

External Application of Nitrate of Silver in Spinal Irritation.—Krug recommends the local application of a weak solution of nitrate of silver against spinal irritation as preferable to the solid stick or the powder. He orders a one per cent. solution in alcohol, and directs its application not only to the seat of pain, but also to the whole neighborhood twice daily. The alcoholic solution has the advantage of allowing of a deeper penetration of the silver into the tissues, and of thus producing a sort of local anæsthesia by causing coagulation of albumen and abstracting water. Krug praises the beneficent and cooling effects of this procedure, which but rarely causes inflammatory irritation. He insists, however, that the treatment should be continued for weeks and months. Cold-water compresses applied at night increase the usefulness of the silver application. This local treatment, of course, is to be regarded only as supplementing suitable internal medication.—*Schmidt's Jahrb.*, ix. 203.—*Therapeutic Gazette*, June, 1885.

Diaphoretic Treatment of Nephritis.—N. Hess, having made a number of observations on the treatment of nephritic patients by wet packs, hot baths supplemented by wrapping in blankets, and hot air baths, draws the following conclusions:

(1) The least rise of temperature occurs with packs, the greatest with hot baths.

(2) While the temperature is found to sink still further twenty minutes after the pack, it remains at the same height for an hour after both the other methods of treatment.

(3) After water baths the temperature regains its original height more slowly than after air baths.

(4) During the pack the pulse becomes slower; during the water and air baths, on the contrary, it is quickened for an hour afterwards.

(5) Under the influence of the pack respiration is moderately quickened; during both water and air baths it is still more quickened, but subsequently returns to its normal rate more rapidly than after the pack.

(6) The most powerful sudorific effects are produced by hot baths, the least powerful by packing.

(7) Though the baths are more stimulating, packing soothes the action of the nervous system, brings the patients on better, and produces a subjective feeling of improvement afterwards.—*Lancet*, June 27, 1885.

Shock and its Treatment.—In a critical study of shock intended to elucidate its pathological relations, Groninger, of Berlin, defines shock as an exhaustion of the medulla oblongata and the spinal cord produced by violent excitation. This definition is no doubt perfectly proper, though it strikes us as if the term "exhaustion" is not sufficiently clear for defining purposes.

He recognises the following varieties:

1. The lowest grade of shock, which causes no appreciable effects.

2. A middle grade, which weakens sensation.

3. A high grade, which extinguishes qualitative sensation.

4. A highest grade, which eradicates both passing and permanent sensations of every kind.

His views of the treatment are noteworthy:

Energetic counter-irritations of the skin are to be excluded as useless and even dangerous.

Abstraction of blood is contraindicated.

Transfusion of blood can only be thought of in cases of great loss of blood.

Opium and chloroform are of no value whatever in shock, while digitalis is worthy of further study.

Alcoholic stimulants and subcutaneous excitation are useful. Horizontal posture, application of warmth, perfect rest, and subcutaneous injection of strychnine are the most recommendable factors of treatment.—*Therapeutic Gazette*, June, 1885.

SURGERY

Treatment of Palmar Ganglion.—*The Lancet*, June 27, 1885, lays down the following rules for treatment of palmar ganglion, as in accord with the best and most recent views of surgical authorities on the subject. The first point of importance is to attempt the cure of the cases as early as possible. No good can come of delay, which merely leads to greater distension of the cyst, and is especially to be deprecated as endangering the adjoining tendons, which become stretched, and even in some cases severed, by the pressure to which they are subjected. Second, the free evacuation of the cyst and the removal of all the "melon seed bodies" it contains, whether these be free in its interior or adherent to its walls. For this purpose an incision about an inch and a half long, not a puncture, should be made in the most prominent part of the swelling, above the annular ligament, avoiding, of course, the radial vessels and the tendons, which can be felt through the skin. Pressure should be made in the palm to force out the fluid and as many of the loose bodies as will thus escape. Then a sharp spoon should be introduced, and the whole cavity scraped, to detach any "bodies" which may be still fixed to the synovial membrane. The "spoon" is much the best means of doing this. Some have trusted to injecting a fresh stream of fluid into the cyst, but this will not remove "bodies" which are still firmly adherent to the cyst wall.

Volkmann passes a large drainage-tube through the cyst, and draws it sharply to and fro, and trusts to that to detach any adherent "bodies," this is, however, an uncertain method, and if the cyst be old and large, with pouches extending from the main cavity, they escape the friction of the tube altogether. Having thus carefully removed all the contents of the cyst, whether solid or fluid, a solution of chloride of zinc, gr. xl—℥i, should be applied to the whole interior of the sac, the purpose of this being so to modify the nutrition of its lining as to prevent any recurrence of the dropsy. A solution of iodine has been used for the same purpose, and some surgeons may be inclined to use iodoform instead. The most important steps in the treatment are those to be taken to secure healing of the wound without suppuration, at any rate without septic suppuration. As a preparatory step the parts must be thoroughly cleansed before the incision is made, and the operation should be conducted under an antiseptic spray or irrigation, and some efficient antiseptic dressing should be finally applied. A drainage-tube should be introduced into the wound and passed down beneath the anterior annular ligament, and only removed when the discharge through it is reduced to a minimum.

Dr. Weiss shows that if pressure be carefully applied over the palmar part of the cyst, all retention of fluid can be carefully obviated. The hand should be kept fixed on some kind of splint applied to the extensor aspect, until the wound inflicted is healed. As soon as that is accomplished, the fingers should be liberated and the patient be encouraged to move them. The results of this treatment are entirely different from those formerly met with. When the antiseptic precautions are carefully carried out, there is no danger whatever of blood poisoning or of profuse local suppuration, and the final result is the restoration of a thoroughly useful hand. The tendons are not bound down by cicatricial bands, and after a time it may be impossible to find any trace of the previous mischief beyond a linear scar in the forearm. Weiss considers that the process of cure of the synovial cyst is analogous to that obtained in a hydrocele by injection, or in dropsy of a joint treated by injection of iodine. At present no case of a recurrence of the ganglion after a septic incision and drainage has been reported.

OBSTETRICS AND GYNÆCOLOGY

Puerperal Convulsions Without Albuminuria.—Dr. N. Vuccino, of Rodosto, writing in the Constantinople *Gazette Medicale d' Orient*, gives the case of a lady usually enjoying excellent health, except for occasional hysterical attacks, who in the fourth month of her first pregnancy was seized with a severe frontal hemicrania of quotidian type. At the end of the sixth month she was awakened one night with intense pain in the head, followed by a slight convulsion affecting the upper extremities. In the morning the writer found her suffering from general convulsions, consciousness being lost, and a bloody froth issuing from the mouth; the pulse was small and hard, but the urine was then, and continued to be, perfectly normal. Various methods of treatment having proved fruitless, it was decided to bring on the labor, which was done by injecting hot water (32°). After this had been continued for three hours and a half, the os uteri became fully dilated, and a dead child was shortly afterwards expelled. The convulsions ceased as if by magic, and in twelve days she was able to resume her household occupations. She afterwards enjoyed good health till the eighth month of her second pregnancy, when convulsions reappeared with greater intensity than before. Chloral and chloroform proving inefficacious, the continual hot vaginal douche was again employed. In consequence of the irregularity of the contractions of the uterus forceps were required. The convulsions ceased five hours after delivery, and in seventeen days she was again in her normal condition. She subsequently became pregnant for the third time, and during the second month suffered from some premonitory convulsive symptoms, which were increased by vaginal examination, these came to an end on the patient aborting. The author considers the case interesting, as showing how convulsions, due, as he believes, to a highly nervous condition of the uterus, may simulate those connected with renal and urinary mischief.—*The Lancet*, July 18, 1885.—*Medical News*, Aug. 15, 1885.

THE

Journal of the American Medical Association

PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer s full name and address, although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE, INCLUDING POSTAGE

PER ANNUM IN ADVANCE	$5 00
SINGLE COPIES	10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,

No 65 RANDOLPH STREET

CHICAGO ILLINOIS

SATURDAY, SEPTEMBER 19, 1885

INTERNATIONAL MEDICAL CONGRESS OF 1887

A carefully corrected and official copy of the proceedings of the Committee of Arrangements for the preliminary organization of the International Congress, at its meetings in Chicago, June 24 and 25, and in New York, September 3 and 4, has been printed and sent by direction of the Secretary-General to all the medical journals in this country Examination will show that these Rules are, in all essential particulars, in strict accordance with those which have been adopted for the organization and government of preceding Congresses They not only open the doors to membership as widely as was done either at London or Copenhagen, but they confer upon the chief officers of the Congress and the presidents of Sections, acting as an Executive Committee, full power to make such further arrangements as may be necessary for the independent and successful management of the Congress in 1887 The Rules thus adopted are in no proper sense the result of any supposed compromise, but of mature deliberation on the part of the Committee of Arrangements, after giving careful attention to the nature and organization of preceding Congresses

For the present, we simply ask every candid member of the profession to give the regulations and preliminary organization now adopted an impartial consideration

THE ACTION OF DIURETICS

Our knowledge of the action of diuretics has within a comparatively recent period received very important contributions, chiefly through anatomical and physiological sources, so that now the physiology of the renal function may be looked upon as fairly well settled While to the researches of Bowman we are largely indebted for directing investigation into the correct channel, as to the anatomical sources of the urinary secretion, yet it was reserved for Heidenhein actually to prove what Bowman had foreshadowed, that the urine consists of a compound product whose elements are derived from two sources the aqueous for the most part from the vessels composing the glomerular tuft, while the solids are the product of the epithelial cells of the convoluted tubes This at once led to a more rational and thorough understanding, not only of the physiology of the renal function and of the morbid conditions most commonly interfering therewith, but also paved the way for a more comprehensive knowledge of the action of diuretic agents, both in health and disease

Several interesting contributions to this subject have recently appeared, among which we notice that of DR E LONG FOX, in opening the discussion in the Section of Pharmacology and Therapeutics at the late annual meeting of the British Medical Association, in Cardiff, South Wales Dr Fox dealt chiefly with the physiological aspect of the subject, more especially in relation to the influence of variations in blood pressure in increasing or decreasing the excretion of the urine, as affected through nervous influences upon the circulation, both renal and systemic After refering to the now established fact, that the function of the malpighian body is mainly that of filtration, while that of the epithelium of the convoluted tubes is mostly to secrete (or excrete) the solids of the urine, *plus* a small amount of filtration, he points out that diuresis depends on conditions that facilitate filtration, in other words, the amount of urine depends upon the difference in degree of pressure between the blood in the malpighian tufts, and the pressure within the convoluted tubes The renal tubules being normally patent, all that is necessary to increase the quantity of the urine, is to raise the blood pressure within the vessels of the tuft Increase of the force, or in the rapidity of the cardiac contractions, stimulation of the vaso constrictors of arteries other than the renal, or paresis of the latter, all bring about the above result Ammonia, alcohol, digitalis, etc , act in the first-named manner, the external application of cold in the second, and the emotion of fear is an example of the last, all producing well known diuresis The cells lining the convoluted tubes performing the office of separation of solids from the blood, it is evident that conditions of vascular pressure affect this function only slightly, to some extent it must be admitted it is true, for slight filtration must take place, as Senator says, in order to carry out the solids in solution, "for no true gland yields a secretion free from water," but in the main, the epithelial cells are influenced by special stimuli, of which urea, uric acid, etc., are probably normal ones, and certain salines, notably salts of potash, lithia, soda, etc., are artificial ones. Certain agents both dilate the renal vessels, and stimulate the renal cells, thus exerting a compound action, the most important of which is juniper. Dr. Fox draws the deduction, that to call forth renal activity most efficiently as a whole, it is best to effect a union of diuretics, combining with those which cause vascular fulness, those that stimulate the renal cells, herein securing more thorough depuration of the blood.

So much for the physiological action of diuretics, unfortunately, however, in therapeutical use, this class of agents are proverbially uncertain in their action, "often proving most disappointing where most needed," partly, as might be expected from what has just been said of a few of the many influences that effect, local or general vascular pressure, but more especially as the result of the various pathological changes arising in renal disease, which interfere anatomically or vitally with filtration, or excretion, or both. Something yet remains to be done in the latter field, before the therapeutic action of diuretics become as certain, and as satisfactory, as they now are physiologically, and after all, this is the most practical and important side of the question. In a paper by DR. CHARLES W. PURDY, published in a recent issue of this JOURNAL, some new suggestions were brought forward on this point, in a chemico-pathological relation to the subject, which promise practical results. Dr. Purdy first points out, that anuria of acute nephritis is due for the most part to accumulation of colloid matter (casts) in the convoluted tubes, which blocking up the latter, counteract the blood pressure in the glomerular tufts, preventing filtration and excretion of urine, and thus the reestablishment of diuresis is an impossibility so long as the obstruction remains. He proposes to remedy the difficulty by effecting a chemical solution of the albuminous matters, which block up the renal tubes by rendering the urine alkaline. As albuminous bodies are more or less soluble in alkaline solutions, and as the urine is readily rendered alkaline by administering certain neutral salts, as acetate, or citrate of potash, he claims that the free use of the latter will dissolve and wash out the obstructing matter, reestablishing the flow of urine, and thus relieve the congestion of the glands. As facts supporting the above, he finds that casts are soluble in the course of a few hours in urine rendered slightly alkaline, and he further points out, that casts are rarely found in urine if the latter be alkaline when passed, and lastly, that experience has generally sanctioned the superior efficiency of saline diuretics in acute renal diseases.

As a result of recent investigations into the condition of the circulation in diabetes mellitus, Dr. Purdy finds that high arterial tension is always present in his experience, as shown by the sphygmograph, similar to that which accompanies chronic Bright's disease, and he suggests that many of the symptoms of diabetes which he names, are thus thrown into clearer light in their causal relations.

We can readily understand if conditions of high arterial tension constantly prevail in diabetes mellitus, that the profuse diuresis accompanying that disease is thereby more readily explainable, and moreover, the same condition of the circulation may throw some light on the hitherto obscure pathology of the disease. At any rate, these points are worthy of careful consideration, and their further investigation may lead to practical and important results.

We cannot close this subject without calling attention to the valuable suggestions in Dr. Purdy's paper, for useful physiological work. To what is the high tension in Bright's disease and diabetes to be attributed, and to what is the cardiac hypertrophy of the former due? Are we to accept the theory put forth by Dr. Walshe, and held to a certain extent by Bright, that the hypertrophy is due to the increased resistance of the tissues (capillaries) to the passage of impure blood? Is this increased resistance (if it be present) due to the action of the impure blood on the walls of the capillaries (or possibly on their vaso motor nerves)? Again, by what mechanism does the blood become impure? "Is it by failure of the kidney—by renal inadequacy—or is it a change in the blood either primary in that fluid, or secondary to some toxic agent introduced from without or manufactured within the body?" (*British Medical Journal*, August 29, 1885.) Is it not possible, again, that the high tension in Bright's disease and in diabetes may be due to some action of the altered blood on the heart itself? It certainly seems, in view of the fact that Bright's disease is accompanied by endarteritis, that the vascular complication is in some way brought about by the abnormal state of the blood, and that it is primary to the cardiac affection. Dr. Purdy's paper also suggests an interesting pharmacological question as to the cause of the good effect of subcarbonate of iron in uræmia, and the answer, it seems, must necessily be given by chemistry. The suggestions contained in this paper are quite sufficient to furnish work for physiologists for some time.

THE ETIOLOGY OF ASTHMA

Among the laity it is very customary to denote any form of difficult respiration as asthmatic, and, indeed, members of the profession are often lax in their use of the term Etymologically, asthma signifies labored respiration hence, there is some justification of its employment as synonymous with dyspnœa More over, medical men of olden times appear to have used these two terms interchangeably It would be preferable, if the term asthma could be exchanged for one expressing the true nature of the distressing malady, but the word has too firm a root in our phraseology to be supplanted, and accordingly, certain adjectives are prefixed to distinguish the varieties of dyspnœa in mind The form of suffering to which it is desirable to restrict the term, is known as nervous, bronchial, idiopathic, or spasmodic asthma while the dyspnœa arising from organic disease of intra thoracic viscera is called secondary or symptomatic asthma Occasionally its relation to some particular organ is denoted by such a designation as cardiac asthma It needs no further comment to show how objectionable is this kind of phraseology

Spasmodic asthma, as the term implies, occurs in paroxysms, its characteristic feature being a difficulty of expiration This peculiarity should not be lost sight of, since it distinguishes this form of dyspnœa from that dependent upon structural disease of the heart or lungs In most cases of nervous asthma, the attack is not attended or followed by bronchial catarrh In others the dry râles ultimately give way to moist ones, and the attack terminates in free expectoration as the spasm subsides Careful physical exploration of the chest, either during or after an attack, fails in typical cases to reveal any organic alteration of the lung structure The percussion note is everywhere resonant, respiratory sounds are faint or wholly obscured by sibilant râles The condition is one of temporary distension of the lungs with air In cases of long standing, this temporary dilatation of the air vesicles passes into a chronic vesicular emphysema Asthmatic attacks appear in most sufferers to be occasioned by external agents which irritate the bronchial mucous membrane In some the spasm is induced by internal causes, as, for example, a nasal polypus or an undigested meal Other patients, again, are extremely sensitive to certain climatic or atmospheric conditions Indeed, this last appears to be the case with all asthmatics As a rule, each patient is a law unto himself, and the idiosyncrasies of these victims are as diverse as amusing We know of one gentleman who is so sensitive to the dust of feathers that, as he says, he feels like kicking every goose he sees

Evidently, then, the asthmatic attack is reflex in its origin But what is the real explanation of its phenomena, or, in other words, what is its pathogenesis? This is a subject of much discussion, particularly among the Germans, who, as Von Ziemssen, of Munich, once remarked, are never happier than when they are pulling down some one else's pet theory

As the means of differentiating intra thoracic disease grew apace, after the discovery of auscultation, clinical observers soon discovered that many forms of dyspnœa, which had been classified by older medical writers under the head of asthma, were but examples of dyspnœa due to heart or lung disease Hence the existence of an independent or idiopathic asthma became doubtful in the minds of many, and was at length denied altogether by Rostan, Louis and others They contended that the asthma was the result of bronchial catarrh, emphysema, etc Other able observers however, took up the cudgels in defense of the old theory, that a spasmodic constriction of the smaller bronchi is the cause of the asthmatic attack Experiments were not wanting to sustain this view Williams, and after him Bert, demonstrated that irritation of terminal filaments of the vagus produced contraction of the bronchioles

This theory, which is an old one, is now the one most generally accepted English and American authors adopt this explanation quite generally Not so with our Teutonic confreres They have waged a fierce, if not bloody battle upon this subject Three other theories have been advanced and ably defended The most notable is that of Wintrich, supported by Bamberger and Lehmann These authors base their conclusions upon clinical observation and physical diagnosis rather than post-mortem appearances and experimentation, which they declare give negative results They maintain that the impediment to free expiration in asthma is due to a tonic contraction of the diaphragm Physical examination during an attack discloses a marked and permanent descent of the diaphragm, with evident distension of the lungs by air If bronchial spasm exist at all, it must be secondary, as is the contraction of the respiratory muscles Were bronchial constriction primary, there would be a collapse rather than a dilatation of the lungs Against this theory Biermer contends most strenuously, and asserts that, in consequence of the distension of the alveoli and terminal bronchioles with air, by reason of the bronchial spasm higher up, the diaphragm is forced downward Instead of this muscle remaining fixed and immovable, he has de-true gland yields a secretion free from water," but in the main, the epithelial cells are influenced by special stimuli, of which urea, uric acid, etc., are probably normal ones, and certain salines, notably salts of potash, lithia, soda, etc., are artificial ones. Certain agents both dilate the renal vessels, and stimulate the renal cells, thus exerting a compound action, the most important of which is juniper. Dr. Fox draws the deduction, that to call forth renal activity most efficiently as a whole, it is best to effect a union of diuretics, combining with those which cause vascular fulness, those that stimulate the renal cells, herein securing more thorough depuration of the blood.

So much for the physiological action of diuretics; unfortunately, however, in therapeutical use, this class of agents are proverbially uncertain in their action, "often proving most disappointing where most needed," partly, as might be expected from what has just been said of a few of the many influences that effect, local or general vascular pressure, but more especially as the result of the various pathological changes arising in renal disease, which interfere anatomically or vitally with filtration, or excretion, or both. Something yet remains to be done in the latter field, before the therapeutic action of diuretics become as certain, and as satisfactory, as they now are physiologically, and after all, this is the most practical and important side of the question. In a paper by DR. CHARLES W. PURDY, published in a recent issue of this JOURNAL, some new suggestions were brought forward on this point, in a chemico pathological relation to the subject, which promise practical results. Dr. Purdy first points out, that anuria of acute nephritis is due for the most part to accumulation of colloid matter (casts) in the convoluted tubes, which blocking up the latter, counteract the blood pressure in the glomeruler tufts, preventing filtration and excretion of urine, and thus the reestablishment of diuresis is an impossibility so long as the obstruction remains. He proposes to remedy the difficulty by effecting a chemical solution of the albuminous matters, which block up the renal tubes by rendering the urine alkaline. As albuminous bodies are more or less soluble in alkaline solutions, and as the urine is readily rendered alkaline by administering certain neutral salts, as acetate, or citrate of potash, he claims that the free use of the latter will dissolve and wash out the obstructing matter, reestablishing the flow of urine, and thus relieve the congestion of the glands. As facts supporting the above, he finds that casts are soluble in the course of a few hours in urine rendered slightly alkaline, and he further points out, that casts are rarely found in urine if the latter be alkaline when passed, and lastly, that experience has generally sanctioned the superior efficiency of saline diuretics in acute renal diseases.

As a result of recent investigations into the condition of the circulation in diabetes mellitus, Dr. Purdy finds that high arterial tension is always present in his experience, as shown by the sphygmograph, similar to that which accompanies chronic Bright's disease, and he suggests that many of the symptoms of diabetes which he names, are thus thrown into clearer light in their causal relations.

We can readily understand if conditions of high arterial tension constantly prevail in diabetes mellitus, that the profuse diuresis accompanying that disease is thereby more readily explainable; and moreover, the same condition of the circulation may throw some light on the hitherto obscure pathology of the disease. At any rate, these points are worthy of careful consideration, and their further investigation may lead to practical and important results.

We cannot close this subject without calling attention to the valuable suggestions in Dr. Purdy's paper, for useful physiological work. To what is the high tension in Bright's disease and diabetes to be attributed, and to what is the cardiac hypertrophy of the former due? Are we to accept the theory put forth by Dr. Walshe, and held to a certain extent by Bright, that the hypertrophy is due to the increased resistance of the tissues (capillaries) to the passage of impure blood? Is this increased resistance (if it be present) due to the action of the impure blood on the walls of the capillaries (or possibly on their vaso motor nerves)? Again by what mechanism does the blood become impure? "Is it by failure of the kidney—by renal inadequacy—or is it a change in the blood either primary in that fluid, or secondary to some toxic agent introduced from without or manufactured within the body?" (*British Medical Journal*, August 29, 1885.) Is it not possible, again, that the high tension in Bright's disease and in diabetes may be due to some action of the altered blood on the heart itself? It certainly seems, in view of the fact that Bright's disease is accompanied by endarteritis, that the vascular complication is in some way brought about by the abnormal state of the blood, and that it is primary to the cardiac affection. Dr. Purdy's paper also suggests an interesting pharmacological question as to the cause of the good effect of subcarbonate of iron in uræmia, and the answer, it seems, must necessily be given by chemistry. The suggestions contained in this paper are quite sufficient to furnish work for physiologists for some time.

THE ETIOLOGY OF ASTHMA

Among the laity it is very customary to denote any form of difficult respiration as asthmatic, and, indeed, members of the profession are often lax in their use of the term Etymologically, asthma signifies labored respiration hence, there is some justification of its employment as synonymous with dyspnœa More over, medical men of olden times appear to have used these two terms interchangeably It would be preferable, if the term asthma could be exchanged for one expressing the true nature of the distressing malady, but the word has too firm a root in our phraseology to be supplanted, and accordingly, certain adjectives are prefixed to distinguish the varieties of dyspnœa in mind The form of suffering to which it is desirable to restrict the term, is known as nervous, bronchial, idiopathic, or spasmodic asthma, while the dyspnœa arising from organic disease of intra-thoracic viscera is called secondary or symptomatic asthma Occasionally its relation to some particular organ is denoted by such a designation as cardiac asthma It needs no further comment to show how objectionable is this kind of phraseology

Spasmodic asthma, as the term implies, occurs in paroxysms, its characteristic feature being a difficulty of expiration This peculiarity should not be lost sight of, since it distinguishes this form of dyspnœa from that dependent upon structural disease of the heart or lungs In most cases of nervous asthma, the attack is not attended or followed by bronchial catarrh In others the dry râles ultimately give way to moist ones, and the attack terminates in free expectoration as the spasm subsides Careful physical exploration of the chest, either during or after an attack, fails in typical cases to reveal any organic alteration of the lung structure The percussion note is everywhere resonant, respiratory sounds are faint or wholly obscured by sibilant râles The condition is one of temporary distension of the lungs with air In cases of long standing, this temporary dilatation of the air vesicles passes into a chronic vesicular emphysema Asthmatic attacks appear in most sufferers to be occasioned by external agents which irritate the bronchial mucous membrane In some the spasm is induced by internal causes, as, for example, a nasal polypus or an undigested meal Other patients, again, are extremely sensitive to certain climatic or atmospheric conditions Indeed, this last appears to be the case with all asthmatics As a rule, each patient is a law unto himself, and the idiosyncrasies of these victims are as diverse as amusing We know of one gentleman who is so sensitive to the dust of feathers that, as he says, he feels like kicking every goose he sees

Evidently, then, the asthmatic attack is reflex in its origin But what is the real explanation of its phenomena, or, in other words, what is its pathogenesis? This is a subject of much discussion, particularly among the Germans, who, as Von Ziemssen of Munich, once remarked, are never happier than when they are pulling down some one else's pet theory

As the means of differentiating intra thoracic disease grew apace, after the discovery of auscultation, clinical observers soon discovered that many forms of dyspnœa which had been classified by older medical writers under the head of asthma, were but examples of dyspnœa due to heart or lung disease Hence the existence of an independent or idiopathic asthma became doubtful in the minds of many, and was at length denied altogether by Rostan, Louis and others They contended that the asthma was the result of bronchial catarrh, emphysema, etc Other able observers however, took up the cudgels in defense of the old theory, that a spasmodic constriction of the smaller bronchi is the cause of the asthmatic attack Experiments were not wanting to sustain this view Williams, and after him Bert, demonstrated that irritation of terminal filaments of the vagus produced contraction of the bronchioles

This theory, which is an old one, is now the one most generally accepted English and American authors adopt this explanation quite generally Not so with our Teutonic confreres They have waged a fierce, if not bloody battle upon this subject Three other theories have been advanced and ably defended The most notable is that of Wintrich, supported by Bamberger and Lehmann These authors base their conclusions upon clinical observation and physical diagnosis rather than post-mortem appearances and experimentation, which they declare give negative results They maintain that the impediment to free expiration in asthma is due to a tonic contraction of the diaphragm Physical examination during an attack discloses a marked and permanent descent of the diaphragm, with evident distension of the lungs by air If bronchial spasm exist at all, it must be secondary, as is the contraction of the respiratory muscles Were bronchial constriction primary, there would be a collapse rather than a dilatation of the lungs Against this theory Biermer contends most strenuously, and asserts that, in consequence of the distension of the alveoli and terminal bronchioles with air, by reason of the bronchial spasm higher up, the diaphragm is forced downward Instead of this muscle remaining fixed and immovable, he has detected slight and ineffectual movements of the diaphragm as it struggled to ascend against the cushion of air above The possibility of spasmodic stricture of the bronchi through contraction of muscular filaments, which Reisseissen demonstrated in the walls of the air tubes, Biermer regards as settled indubitably by the investigations of Bert An intermediate ground is occupied by Lebert, who finds an explanation for *asthma in a reflex spasm of first the bronchioles and* then the diaphragm, and perhaps other expiratory muscles

In marked contrast to the foregoing is the view of Weber, according to whom the asthmatic attack is the result of vaso motor disturbance In other words, owing to irritation of the bronchial mucous membrane, a dilatation or paresis of the blood-vessels takes place, producing a fluxionary hyperæmia This obstructs the lumen of the tube and hinders the free escape of air Later on this condition subsides, a copious secretion ensues, and constitutes bronchial catarrh with expectoration This theory is advocated in the main by Storck

Finally, Leyden, now of Berlin, announced his discovery in the sputa of asthmatic patients of minute octahedral crystals imbedded in a mass of granularly degenerated cells He supposes these sharp crystals so irritate the terminal filaments of the vagus within the air tube as to ultimately lead to spasm of the bronchial muscles Such are the various theories offered in explanation of the pathogenesis of bronchial asthma Spastic contraction of the bronchial muscular fibres is the most generally accepted, and is supported by the weightiest evidence

KISSING FROM A MEDICAL STAND POINT

A correspondent in our valued contemporary *Babyhood*, of September, 1885, justly condemns the custom, quite usual with some mothers, of compelling children to kiss people promiscuously The sensibilities of children are very acute, and it is not surprising that they should often strenuously object to promiscuous osculatory exercises It is enough to make even a young child lose all faith in human nature to be compelled to kiss some people And apart from the physical objections to the habit there are moral objections to it If the child objects it is a species of cruelty to compel it to kiss, and if it does not object, it may become so wedded to the habit as possibly to entail serious, moral or physical consequences in after life

We say "physical consequences" with good reason, for besides such a sore accident as rupture of the membrana tympani, which has resulted from a kiss on the ear, loathsome and deadly diseases may be communicated by kissing Any one of the contagious or infectious diseases may be so communicated, and there are certainly numerous cases on record in which diphtheria and scarlatina have been traced very directly to a kiss How is a mother to know but that the person who kisses her child has some specific *affection, that there are specific buccal lesions*, which may be the direct cause of a life time of misery to her child, or an early and horrible death From her stand point, therefore, that compulsory kissing is disagreeable to the child, the correspondent of *Babyhood* is in the right, but, as we have shown, it is doubly wrong, in that it may, after the disagreeable act is finished and perhaps forgotten, entail the most serious consequences

CHOLERA EPIDEMIC —The epidemic which has been prevailing so severely in Spain, is now gradually abating, with a good *prospect that during this season* it will not extend over Europe, or materially beyond its present limits

SOCIETY PROCEEDINGS

AMERICAN DERMATOLOGICAL ASSOCIATION

(*Concluded from page 306*)

FRIDAY, AUGUST 28—THIRD DAY

Dr C Heitzman made some

REMARKS ON ELECTROLYSIS AND OTHER PRACTICAL TOPICS

He spoke very highly of electrolytic epilation For this pupose he uses the Leclanche battery Six cells of this battery has the advantage of steadiness, lack of pain and lack of reaction when applied to the face of the patient He employs a needle devised by Leiter, of Vienna, which permits the depth to which the needle penetrates to be measured He has had good results from electrolytic destruction of dilated blood vessels in the face, less satisfactory results in the treatment of port wine marks, where a *permanent cure is only exceptionable* attainable Sodium æthyl is highly recommended by some, for the destruction of angioma of the face, but it is in no way superior to nitric acid

The speaker maintained, after observing two hundred cases of falling of the hair, caused by seborrhœa, that the method he recommended in 1876, gave fair results This is the application of a ten or twenty per cent ointment of crude oleum rusci in vaseline and parrafine

For the removal of freckles, the Doctor used an ointment *recommended to him* by Wertheim of Vienna The preparation is as follows

℞

Hydrarg ammon muriat , grm ,	3 75
Magist bismuthi , grm ,	3 5
Ungt glycerini, grm ,	30 0
M	

This is to be applied in a thin layer every other night, and in four or six weeks, the result is highly satisfactory As to the permanency of the cure the Doctor was unable to state

In regard to the reappearance of hair after removal by electrolysis, the speaker considered it to be due to the growth of the fine hairs, which was increased by the transferrence to them of the nutrition, which should have gone to the hairs removed

Dr Hyde remarked, that Heitzman had touched upon the important point in the removal of hair by electrolysis The question is not what will the result be at present, but what will it be in the future? The electrolysis produces a hyperæmia which tends to stimulate the growth of the remaining hair He had found the rectified oleum rusci very valuable, and asked what is the test of the crude oil?

Dr Fox said that in the treatment of angioma he had used nitric acid, making the application in the form of small dots, one-fourth to half an inch apart with great advantage In one case in which a nevus occupied half the body, he used this treatment with much success In regard to the return of the hair after electrolysis If the needle is carefully inserted and gentle traction is made on the hair, that hair will not return In some cases there is a constant increase in the downy hairs from some cause, but these are exceptional cases He did not think that the removal of hairs increases the growth of others In one case, that of a young woman with a strong beard, he removed by actual count, eight thousand hairs This process required two or three years Since then it has been necessary to remove only a few dozen hairs

Dr Robinson had employed a similar ointment for the removal of freckles, but its effect was only temporary He thought the growth of the remaining hairs was increased by the removal of a portion

Dr Wigglesworth said, that for the past fifteen years he had used the following ointment, which was almost identical with that mentioned by Dr Heitzman

℞

Hydrarg ammon ,	parts	10
Bismuthi subnitratis,	"	10
Vaseline,	"	100
M		

Dr Duhring considered the oil of rusci valuable in seborrhœa of the scalp The objection to it is its disagreeable odor He had also used in chronic seborrhœa of the scalp, a preparation of sulphur, but did not consider it as efficacious as tar

Dr Hardaway had performed the operation of electrolysis for ten or twelve years, probably longer than any other member of the Association He used the irido platinum needle, which has the advantage of being bent, and it is not likely to pass through the follicle wall The moment the follicle is entered, there is an escape of sebum One case, that of a woman with a heavy black beard, has been entirely relieved Electrolysis with a fine needle, affords a method of getting rid of freckles The plan is to dot the needle over the surface covered by the freckle

Dr Heitzman said that the percentage of recurring hairs, is greater in some situations than in others In the submaxillary region, it is greatest The oil of rusci crudum is better than the rectified oil To test it, add alcohol to a small portion of the oil and paint it on the skin If it drys quickly leaving a black mark, it is the crude oil

Dr R W Taylor, of New York, read a paper on

SYPHILITIC RE INFECTION

He first referred to the literature of the subject and gave a brief review of the authentic cases on record, giving the names of the reporters The number of cases previously reported is between thirty and forty To these the speaker added the histories of three more A fourth case has been observed by him, but as the complete history was not prepared, it was not given

Case 1 —A bar keeper, aged 25 years, was first seen in 1868, suffering with gonorrhœa Three years previously had had indolent enlargement of the lymphatic glands in the groins Examination showed the presence of lymphatic enlargement in certain regions Inquiry into the history, showed the existence of a chancre three years before, which had been slow in healing About two months later, he became sick, and suffered with a roseolous eruption, sore throat, falling of the hair, and rheumatic pains, worse at night Under treatment he improved, but afterwards exhibited a papular eruption He was then seen by Dr Van Buren who pronounced the case one of syphilis, and ordered mercurial treatment He recovered after two years, but of his own accord, continued the treatment two years longer He then remained well until the attack of gonorrhœa

In February, 1870, he again appeared, presenting a typical indurated chancre on the cutaneous aspect of the pubes It presented every evidence of a primary infection Later a papular syphilide appeared over the body There were several mucous patches on the pillars of the fauces, and the throat was red and swollen The joints soon became the seat of nocturnal pains The patient also presented a form of syphilitic epididymitis Under mercurial treatment, there was some improvement, but a year later there were some tertiary manifestations By 1874, he seemed very well During the next three years, there were no evidences of syphilis, but he continued the mixed treatment

He was again seen in the fall of 1882, when it was learned that his good health had continued and that he was the father of a healthy child The child was examined and no evidence of hereditary syphilis, detected

Case 2 —Had in June, 1873, a typical indurated chancre, followed by distinct secondary symptoms, which disappeared under treatment He then passed from observation In February, 1874, he presented several ulcero tubercular lesions on the outer aspect of the forearm He then remained under treatment six months In January, 1875, he had spots of thickening of the periosteum of both tibia He was again treated with benefit In June 1876, there was a typical indurated nodule on the prepuce, from which extended indurated lymphatics passing to the inguinal lymphatic glands The incubation of this sore had been about twenty days This was followed by malaise, sore throat, swelling of the post-cervical and epitrochlear glands Over the body and arms there was a fine mottling of light pink color The patient then went to Europe, and was not seen again till March, 1885, when it was learned that the symptoms had been well marked, and that he had been treated for them by several Continental physicians

Case 3, aged 41, had had a typical indurated chancre in 1874 There had been inguinal adenitis, followed by roseola, falling of the hair, and later by severe iritis of the right side He was treated with mercury In February, 1882, he returned with a typical hard chancre In April, he became sick, had rheumatic pains and a mixed eruption of erythematous and papular syphilide In May, inflammation of the iris of the right eye again appeared In 1883, he had a late secondary rash

These cases were reported with the object of throwing some light upon the natural history of second infections of syphilis In all these cases, relapsing indurations were carefully excluded

DR HYDE had seen but two cases of reinfection of syphilis, where he was perfectly sure of the fact

DR H W STELWAGON, of Philadelphia, made some

OBSERVATIONS ON THE OLEATES

In regard to the chemistry and preparation of the various oleates, both as to their manufacture by the direct combination of the acid with the base, and by double decomposition, almost, if not entirely as much can be found in the English translation of Gmelin's "Handbook of Chemistry," published in 1866, as in the writings of the past several years

Of all the oleates, those of mercury zinc, bismuth and lead have a place in the treatment of diseases of the skin, and in view of their costliness, the seeming unavoidable frequency of badly made preparations, the disagreeable oleic acid odor, and the irritation so frequently observed following their use, it is probable that of these four, the mercuric oleate is the only one that promises to retain a permanent value This last is especially valuable in ringworm of the scalp, but for inunctions in the treatment of syphilis, it is of doubtful utility, as it is questionable whether it is absorbed Oleate of copper, which has been so highly recommended for ringworm of the scalp, is not comparable in that affection to oleate of mercury, or to tar and sulphur preparations

DR TILDEN agrees with Dr Stelwagon, that oleates are not useful as ointments

DR WIGGLESWORTH had practically renounced all oleates except the oleates of zinc, lead and mercury, as parasiticides

DR DUHRING said that his experience with these preparations was in accord with that of the reader of the paper He had employed the oleate of copper in varying strengths in thirty or forty cases of ringworm, but it seemed to exert no influence whatever These were, however, obstinate cases Other methods of treatment were afterwards tried, and they were finally cured As to its efficiency in acute forms of ringworm, he was not prepared to speak

DR HEITZMAN had tried the oleate of copper in chronic cases of ringworm, without any result, but in the acute cases, it cures after a time It is not as efficient, however, as the preparation recommended by Dr Taylor, that is, four grains of bichloride of mercury to the ounce of tincture of myrrh

DR FOX said it had been claimed that the oleic acid and animal oils are better absorbed than vaseline and other preparations As a matter of experience, he had found that vaseline makes a better base for the majority of ointments than do the animal oils Vaseline is a most soothing application to the skin

DR HARDAWAY had almost entirely discarded the oleates In some recent cases, the oleate of copper has seemed to be successful, but in chronic cases it *entirely failed*

DR L N DENSLOW then reported

A CASE OF SYPHILITIC APHASIA AND PARAPLEGIA, FOLLOWED BY DEATH, WITH AN ACCOUNT OF THE AUTOPSY

The object of the paper was simply to put on record a case in which an autopsy was obtained in early syphilitic cephalalgia The patient was seen in consultation April 29, 1885 Two months previously, the patient had begun to suffer with severe headache, worse at night There was also a papular eruption He acknowledged the existence of a sore six months previously Iodide of potassium with chloral had been given, two weeks later, the patient was free from pain, but it returned one month afterwards, when the patient stopped taking medicine Iodide of potassium was again given, with the effect of relieving the pain Aphasia and paraplegia then developed, and the patient died four days later, and within nine months of the initial lesion

At the autopsy, the dura mater along the longitudinal sinus was thickened and adherent There were numerous small gummata in the pia mater, situated along the right border of the longitudinal sinus and extended back to the fissure of Sylvius The pia mater exhibited the evidences of simple acute inflammation

OBSTETRICAL SOCIETY OF PHILADELPHIA

Stated Meeting, Thursday, September 3d, 1885

THE PRESIDENT, B F BAER, M D, IN THE CHAIR

DR B F BAER read the following report of a case of

OVARIAN CYSTOMA, COMPLICATED WITH PERITONITIS AND PHLEGMASIA ALBA DOLENS DOUBLE OVARIOTOMY

Mrs M, æt 31, has been a widow nine years She had one child ten years ago, and had enjoyed good health until about three years before I saw her

At that time she observed that her abdomen was increasing in size. This gradually progressed for eighteen months, when she was large enough to attract the attention of her neighbors. After this the growth remained almost stationary and did not affect her general health until the latter part of March of the present year, when she was suddenly seized with pain in the left iliac region. The pain was acute and radiating in character, extending principally down the anterior portion of the left thigh. She attributed the attack to an unusual exertion. Although she made an effort to continue her avocation—that of seamstress—she was compelled to give up and send for her physician, Dr. John R. Haney, of Camden. When Dr. Haney first saw her, her abdomen was very tender over its entire surface, purple from congestion, greatly distended, and tympanitic in its upper but dull in its lower portion. She was suffering great pain and had constant nausea and vomiting, her skin was hot, pulse 120, and temperature 103°. From the history, symptoms, and physical signs elicited, the doctor diagnosticated ovarian cystoma, with supervening peritonitis. He administered quinia per rectum and morphia hypodermatically, together with counter irritation over the abdomen. Within a week the patient appeared to be better, when, through the kindness of Dr. Haney, I first saw her. The tympanites had disappeared and the pain was not so severe, but the abdomen was still very tender on pressure, especially in the left iliac and right umbilical regions, her features were drawn and flushed, and presented an anxious expression, her tongue was dry and heavily coated, pulse quick, and temperature 102°. She lay quietly in the dorsal position, with her thighs flexed. The abdomen was as large as at full term of gestation, and was projecting. It was dull on percussion everywhere except along the line of the colon, and in the epigastrium, and there was evident fluctuation. The uterus was retroverted, not freely mobile, and very tender on pressure on the left side. Above and upon it could be felt the lower border of the circumscribed growth which occupied the abdominal cavity. I fully agreed with Dr. Haney's diagnosis of ovarian cyst complicated by peritonitis. As she seemed to be somewhat better, I advised a continuance of the treatment as previously pursued, with the hope of obviating the necessity of ovariotomy during the unfavorable condition in which she then was. The peritonitis continued to improve slowly, but a new trouble presented itself in a very painful swelling of the left lower extremity. This continued until the limb was greatly increased in size. Its temperature was much higher than that of its fellow, which seemed to be in a normal condition. She now required large doses of morphia to relieve her pain, and she was losing flesh and strength. She still had nausea and took almost no nourishment. Her temperature and pulse had again risen to almost the highest point noted. Both she and her friends were willing and anxious that we should do someteing more radical than simply to wait for a more favorable condition for operating, if we deemed it proper. I believed from the symptoms and physical signs, that the inflammatory action was external to the cyst and not within it, and for that reason decided to wait for a subsidence of the acute symptoms which I rather confidently expected. At the same time I held myself in readiness to operate at once, should the patient not improve or grow worse. The next day she showed signs of slight improvement. Treatment both local and general continued. The acute symptoms gradually subsided to those of a sub acute condition. The temperature had decreased to 101°, pulse 100, but weak. She was still unable to retain food, and was extremely weak. I advised further delay, but she did not improve much after this, her temperature and pulse remaining about the same as that noted above. Her stomach had regained its power to a slight degree to retain and digest liquid food. She had now been confined to her bed more than two months, and her left leg was powerless. There had not been the slightest improvement during the two previous weeks. We therefore decided to remove the tumor.

Operation.—June 19th, 1885, assisted by Drs. J. K. Haney, W. A. Davis, and H. M. Christian and in the presence of a section of the class from the Polyclinic, I made an incision three inches in length down to the peritoneum, and then checked the hæmorrhage with clamp forceps. I next very carefully incised the peritoneum and found, as I had expected, that it was closely united to the cyst wall. These adhesions of cyst to peritoneum were universal, and required careful and patient manipulation to separate them. The parts were exceedingly vascular and hæmorrhage was profuse. After separating it as far as possible I tapped the cyst and allowed the contents, which were semi-liquid and chocolate colored, to drain away. I next closed the puncture made by the trocar, and then completed the separation of the cyst from its adhesions and removed it. As there was a very general and free oozing of blood from the broken vessels, I introduced a number of large flat sponges and spread them over the bleeding surfaces. An assistant now made firm pressure upon the external surface of the abdominal walls, whilst I ligated the pedicle and removed the tumor. The cyst developed in the left ovary and the pedicle was slender, not unusually vascular, and of good length. The right ovary was diseased, contained a number of small cysts, and was double the normal size. I removed it also. Examination now showed that the hœmorrhage had almost ceased, but there were still a number of points from which blood flowed. The peritoneum was intensely injected, and I disliked very much to pick up bleeding points for fear of making the hæmorrhage worse. I therefore reapplied a large flat sponge, and had firm pressure again made from without whilst I proceeded to place the sutures for the closure of the incision. I then removed the sponge and found very little blood upon it. I replaced it by a long, narrow strip of sponge which I allowed to project from the lower angle of the wound, and then again cleansed Douglas's cul-de-sac and other dependent portions of the peritoneal cavity, after which I quickly tied the sutures from above downwards, removing the long sponge through the lower angle of the wound before I had encroachtreated with benefit In June, 1876, there was a typical indurated nodule on the prepuce, from which extended indurated lymphatics passing to the inguinal lymphatic glands The incubation of this sore had been about twenty days This was followed by malaise, sore throat, swelling of the post-cervical and epitrochlear glands Over the body and arms there was a fine mottling of light pink color The patient then went to Europe, and was not seen again till March, 1885, when it was learned that the symptoms had been well marked, and that he had been treated for them by several Continental physicians

Case 3, aged 41, had had a typical indurated chancre in 1874 There had been inguinal adenitis, followed by roseola, falling of the hair, and later by severe iritis of the right side He was treated with mercury In February, 1882, he returned with a typical hard chancre In April, he became sick, had rheumatic pains and a mixed eruption of erythematous and papular syphilide In May, inflammation of the iris of the right eye again appeared In 1883, he had a late secondary rash

These cases were reported with the object of throwing some light upon the natural history of second infections of syphilis In all these cases, relapsing indurations were carefully excluded

DR HYDE had seen but two cases of reinfection of syphilis, where he was perfectly sure of the fact

DR H W STELWAGON, of Philadelphia, made some

OBSERVATIONS ON THE OLEATES

In regard to the chemistry and preparation of the various oleates, both as to their manufacture by the direct combination of the acid with the base, and by double decomposition, almost, if not entirely as much can be found in the English translation of Gmelin's "Handbook of Chemistry," published in 1866, as in the writings of the past several years

Of all the oleates, those of mercury, zinc, bismuth and lead have a place in the treatment of diseases of the skin, and in view of their costliness, the seeming unavoidable frequency of badly made preparations, the disagreeable oleic acid odor, and the irritation so frequently observed following their use, it is probable that of these four, the mercuric oleate is the only one that promises to retain a permanent value This last is especially valuable in ringworm of the scalp, but for inunctions in the treatment of syphilis, it is of doubtful utility, as it is questionable whether it is absorbed Oleate of copper, which has been so highly recommended for ringworm of the scalp, is not comparable in that affection to oleate of mercury, or to tar and sulphur preparations

DR TILDEN agrees with Dr Stelwagon, that oleates are not useful as ointments

DR WIGGLESWORTH had practically renounced all oleates except the oleates of zinc, lead and mercury, as parasiticides

DR DUHRING said that his experience with these preparations was in accord with that of the reader of the paper He had employed the oleate of copper in varying strengths in thirty or forty cases of ringworm, but it seemed to exert no influence whatever These were, however, obstinate cases Other methods of treatment were afterwards tried, and they were finally cured As to its efficiency in acute forms of ringworm, he was not prepared to speak

DR HEITZMAN had tried the oleate of copper in chronic cases of ringworm, without any result, but in the acute cases, it cures after a time It is not as efficient, however, as the preparation recommended by Dr Taylor, that is, four grains of bichloride of mercury to the ounce of tincture of myrrh

DR FOX said it had been claimed that the oleic acid and animal oils are better absorbed than vaseline and other preparations As a matter of experience, he had found that vaseline makes a better base for the majority of ointments than do the animal oils Vaseline is a most soothing application to the skin

DR HARDAWAY had almost entirely discarded the oleates In some recent cases, the oleate of copper has seemed to be successful, but in chronic cases it entirely failed

DR L N DENSLOW then reported

A CASE OF SYPHILITIC APHASIA AND PARAPLEGIA, FOLLOWED BY DEATH, WITH AN ACCOUNT OF THE AUTOPSY

The object of the paper was simply to put on record a case in which an autopsy was obtained in early syphilitic cephalalgia The patient was seen in consultation April 29, 1885 Two months previously, the patient had begun to suffer with severe headache, worse at night There was also a papular eruption He acknowledged the existence of a sore six months previously Iodide of potassium with chloral had been given, two weeks later, the patient was free from pain, but it returned one month afterwards, when the patient stopped taking medicine Iodide of potassium was again given, with the effect of relieving the pain Aphasia and paraplegia then developed, and the patient died four days later, and within nine months of the initial lesion

At the autopsy, the dura mater along the longitudinal sinus was thickened and adherent There were numerous small gummata in the pia mater, situated along the right border of the longitudinal sinus and extended back to the fissure of Sylvius The pia mater exhibited the evidences of simple acute inflammation

---

OBSTETRICAL SOCIETY OF PHILADELPHIA

Stated Meeting, Thursday, September 3d, 1885

THE PRESIDENT, B F BAER, M D, IN THE CHAIR

DR B F BAER read the following report of a case of

OVARIAN CYSTOMA, COMPLICATED WITH PERITONITIS AND PHLEGMASIA ALBA DOLENS DOUBLE OVARIOTOMY

Mrs M, æt 31, has been a widow nine years She had one child ten years ago, and had enjoyed good health until about three years before I saw her

At that time she observed that her abdomen was increasing in size. This gradually progressed for eighteen months, when she was large enough to attract the attention of her neighbors. After this the growth remained almost stationary and did not affect her general health until the latter part of March of the present year, when she was suddenly seized with pain in the left iliac region. The pain was acute and radiating in character, extending principally down the anterior portion of the left thigh. She attributed the attack to an unusual exertion. Although she made an effort to continue her avocation—that of seamstress—she was compelled to give up and send for her physician, Dr. John R. Haney, of Camden. When Dr. Haney first saw her, her abdomen was very tender over its entire surface, purple from congestion, greatly distended, and tympanitic in its upper but dull in its lower portion. She was suffering great pain and had constant nausea and vomiting; her skin was hot, pulse 120, and temperature 103°. From the history, symptoms, and physical signs elicited, the doctor diagnosticated ovarian cystoma, with supervening peritonitis. He administered quinia per rectum and morphia hypodermatically, together with counter irritation over the abdomen. Within a week the patient appeared to be better, when, through the kindness of Dr. Haney, I first saw her. The tympanites had disappeared and the pain was not so severe, but the abdomen was still very tender on pressure, especially in the left iliac and right umbilical regions; her features were drawn and flushed, and presented an anxious expression; her tongue was dry and heavily coated, pulse quick, and temperature 102°. She lay quietly in the dorsal position, with her thighs flexed. The abdomen was as large as at full term of gestation, and was projecting. It was dull on percussion everywhere except along the line of the colon, and in the epigastrium, and there was evident fluctuation. The uterus was retroverted, not freely mobile, and very tender on pressure on the left side. Above and upon it could be felt the lower border of the circumscribed growth which occupied the abdominal cavity. I fully agreed with Dr. Haney's diagnosis of ovarian cyst complicated by peritonitis. As she seemed to be somewhat better, I advised a continuance of the treatment as previously pursued, with the hope of obviating the necessity of ovariotomy during the unfavorable condition in which she then was. The peritonitis continued to improve slowly, but a new trouble presented itself in a very painful swelling of the left lower extremity. This continued until the limb was greatly increased in size. Its temperature was much higher than that of its fellow, which seemed to be in a normal condition. She now required large doses of morphia to relieve her pain, and she was losing flesh and strength. She still had nausea and took almost no nourishment. Her temperature and pulse had again risen to almost the highest point noted. Both she and her friends were willing and anxious that we should do someteing more radical than simply to wait for a more favorable condition for operating, if we deemed it proper. I believed from the symptoms and physical signs, that the inflammatory action was external to the cyst and not within it, and for that reason decided to wait for a subsidence of the acute symptoms which I rather confidently expected. At the same time I held myself in readiness to operate at once, should the patient not improve or grow worse. The next day she showed signs of slight improvement. Treatment both local and general continued. The acute symptoms gradually subsided to those of a sub-acute condition. The temperature had decreased to 101°, pulse 100, but weak. She was still unable to retain food, and was extremely weak. I advised further delay, but she did not improve much after this, her temperature and pulse remaining about the same as that noted above. Her stomach had regained its power to a slight degree to retain and digest liquid food. She had now been confined to her bed more than two months, and her left leg was powerless. There had not been the slightest improvement during the two previous weeks. We therefore decided to remove the tumor.

Operation.—June 19th, 1885, assisted by Drs. J. K. Haney, W. A. Davis, and H. M. Christian, and in the presence of a section of the class from the Polyclinic, I made an incision three inches in length down to the peritoneum, and then checked the hæmorrhage with clamp forceps. I next very carefully incised the peritoneum and found, as I had expected, that it was closely united to the cyst wall. These adhesions of cyst to peritoneum were universal, and required careful and patient manipulation to separate them. The parts were exceedingly vascular and hæmorrhage was profuse. After separating it as far as possible I tapped the cyst and allowed the contents, which were semi-liquid and chocolate colored, to drain away. I next closed the puncture made by the trocar, and then completed the separation of the cyst from its adhesions and removed it. As there was a very general and free oozing of blood from the broken vessels, I introduced a number of large flat sponges and spread them over the bleeding surfaces. An assistant now made firm pressure upon the external surface of the abdominal walls, whilst I ligated the pedicle and removed the tumor. The cyst developed in the left ovary and the pedicle was slender, not unusually vascular, and of good length. The right ovary was diseased, contained a number of small cysts, and was double the normal size. I removed it also. Examination now showed that the hœmorrhage had almost ceased, but there were still a number of points from which blood flowed. The peritoneum was intensely injected, and I disliked very much to pick up bleeding points for fear of making the hæmorrhage worse. I therefore reapplied a large flat sponge, and had firm pressure again made from without whilst I proceeded to place the sutures for the closure of the incision. I then removed the sponge and found very little blood upon it. I replaced it by a long, narrow strip of sponge which I allowed to project from the lower angle of the wound, and then again cleansed Douglas's cul-de-sac and other dependent portions of the peritoneal cavity, after which I quickly tied the sutures from above downwards, removing the long sponge through the lower angle of the wound before I had encroached so closely upon it as to compress it in its removal It was only slightly stained I quickly applied the external dressing, making an unusual amount of pressure by cotton and bandage The operation was finished, but the patient bore it badly Her extremities were cold and purple, her face livid, and pulse very weak Stimulants hypodermically and the application of external heat, which were begun during the operation, were continued after she was returned to bed She remained in an almost collapsed state for many hours, but gradually reacted and the next morning was in a fair condition Her temperature was lower than it had been for weeks, pulse 112, but weak, stomach quiet, no pain, no tympany She had taken an occasional small piece of ice, but nothing else except the morphia since the operation

June 21st Temperature 102°, pulse 120 Slight pain and tenderness in left iliac region She had been very weak and faint during the night, for which brandy had been administered in repeated small doses The swelling and pain in the limb had diminished, she had not vomited since the operation, and felt hungry Ordered a teaspoonful of milk every second hour

June 22d Comfortable and doing well Temperature 99½°, pulse 90, and strong, slight metrostaxis, passed flatus per rectum Milk increased to a tablespoonful and retained

June 24th Temperature 99°, pulse 85 General condition greatly improved, no pain, no tympany, examined wound and found it united throughout, removed sutures

June 25th Doing well, and is bright and cheerful She took nearly a quart of milk during the last twenty four hours, and digested it

June 30th She has been gradually improving Temperature normal, pulse 95 Bowels moved to day She is taking solid food, and expresses herself as feeling quite well Limb improving She can now move it

July 12th Sat up to day for the first time, the twenty-second day after the operation

August 30th A note received from Dr Haney to day informs me that Miss M is going about attending to some of her duties, but that she has not yet regained her strength fully, and that her limb is still weak

The recovery of the woman under the forlorn circumstances just narrated, is certainly a great triumph for our art, but the case serves a better purpose in forcibly illustrating the danger of deferring operative interference in ovarian cystoma, simply because the patient is comfortable, and suffering no inconvenience from the presence of the tumor The subject of an ovarian tumor is in constant danger of injury from slight causes, which may produce such changes in the tumor, as to render what might have been a simple and safe operation, one of extreme hazard This had been a simple, slow growing cyst, and had not markedly affected the health during its three years of existence, yet it suddenly became inflamed, and the patient narrowly escaped death as a result The case furnishes a strong argument in favor of operation as soon as the disease is diagnosticated Of course there are qualifications and each case must be decided on its own merits, but the rule that an ovarian tumor should be removed as soon as it is known to exist is the only safe one to follow

As a striking contrast to the case just related, and to show the value of the principle enunciated, I will report the following case of

POLYCYSTIC OVARIAN TUMOR, DOUBLE OVARIOTOMY

A K was sent to me August 5th, 1885 She was 19 years of age, single Puberty was established at sixteen, and she had menstruated regularly until six months previously She then without cause, so far as she knew began to flow more freely at her periods and they continued longer About the same time she noticed a small lump in the right iliac region This increased in size so that soon the entire hypogastrium was distended, and when I first saw her she was as large as at the eighth month of gestation Her face showed marked signs of emaciation and pallor, and the drawn, anxious expression of ovarian cystic disease She was then having a profuse metrorrhagia every two weeks She had not suffered any pain, and up to within a few weeks very little inconvenience except from the frequent metrorrhagia

During the last month, however, her health had been failing, she had lost flesh, had a weak languid feeling, and suffered much from the weight of the growth Physical examination in the dorsal position revealed a projecting slightly irregular abdomen, larger on the right side, dull on percussion over the entire anterior surface, but resonant along the line of the colon Palpation showed imperfect fluctuation and several firm irregular masses within the abdominal cavity The vagina was virginal the cervix uteri was pointing forwards, the body of the uterus retroverted, the whole organ enlarged and soft It was only slightly movable independently of the tumor The sound gave a measurement of three inches I diagnosticated polycystic disease of the right ovary, and advised immediate operation Six days afterwards, on August 11th, she entered my private hospital, and on the 13th I operated with the assistance of Drs H M Christian and J N Richards I made an incision two and a half inches in length, and came upon the surface of the tumor, which presented the white glistening nacreous appearance, especially common to thick walled polycysts Tapped with Hodge's trocar The contents were so thick, that they flowed very slowly, and it was necessary to puncture several smaller cysts, which was done without removing the instrument Even then the mass did not collapse much, because of a large number of young or child cysts After closing the puncture, I enlarged the incision to three inches, but I had considerable difficulty in removing the tumor It was necessary to make firm traction with rotatory movements whilst Dr Christian exerted a counter force and pressure through the abdominal walls Fully ten minutes were occupied in delivering the tumor after it was tapped, but I was rewarded with an incision that looked so small that it seemed almost incredible that this large mass had passed through it There had not been a single adhesion, but the pedicle was short, thick and vascular. I tied it with Tait's Staffordshire knot, cut the tumor away and dropped the stump. The tissues of the left ovary were found to be entirely disorganized and degenerated into a cyst as large as a walnut. This I also removed. The uterus presented a very vascular appearance and was somewhat enlarged. After assuring myself that the peritoneal cavity was entirely free from any foreign matter, I closed the incision, dressed the wound, and returned the patient to bed. Temp. normal, pulse, 96°, no pain but as she felt a little sore and restless ¼ grain of morphine was given hypodermically, small pieces of ice for thirst. 14th, 8 A.M., temp. 99°, pulse 84, had passed a good night. At 1 P.M., 26 hours after the operation, milk in teaspoonful doses was allowed, water when she desired it. 15th, metrostaxis began this morning. 18th, union complete, renewed sutures. Her recovery was uninterrupted. She sat up for a few minutes on the 11th day, and went home, eight miles in a carriage on the 18th day after the operation. To-day she sent a request to be permitted to go out, because she is feeling so well. Certainly nothing could have been gained by procrastination in this case.

Dr. Goodell congratulated Dr. Baer on the good results obtained in such a serious case as that first reported. Great care in the asepsis of these cases should be observed. In one of his cases of septicæmia before the operation, after complete union had been secured, the stitches had been removed, and after the patient was up, an abscess was observed, forming in the line of union and was very persistent. Finally, after careful search, a ligature which had been tied around the pedicle of one of the ovarian cysts was found and removed. Subsequently the other appeared, and after its removal the abscess healed. He did not like to remove the stitches so early as Dr. Baer removed them, and he reminded Dr. Baer of a case in which he had assisted Dr. Goodell. The operation was performed on December 5th. Convalescence was rapid, and the patient was so impatient to be home on Christmas that she could not be restrained, and on the 19th day after the operation she took the cars for home. The train was derailed, and the jolting caused the cicatrix to open. The physician who was called in closed it immediately and the patient recovered. In another case a cough caused the wound to burst open and reveal the bowels after the stitches had been removed. This patient also recovered. For these reasons he never removed the patient before the eighth day and not until the bowels had been opened. He inquired of Dr. Baer his method of closing the opening in the cyst after it had been tapped preparatory to its removal from the abdominal cavity. Does he employ pressure forceps? What method of dressing the abdominal wound?

Dr. Baer replied that he closes the cyst puncture with Well's clamp forceps when the cyst wall is strong enough. In some cases he stitches up the opening, or ties a string below it when the cyst walls are loose and soft. He closes the external wound, as he had been taught by Dr. Goodell, with silk sutures and dresses it with salicylated or absorbent cotton, adhesive strips to hold the cotton in place and take the strain off from the stitches, and over all a bandage. He removes the sutures on the fourth or fifth day in order to avoid the danger of pus forming in the suture tracks, as has sometimes occurred when he has allowed them to remain as long as eight days.

(*To be concluded.*)

FOREIGN CORRESPONDENCE

LETTER FROM PARIS

(FROM OUR OWN CORRESPONDENT.)

The Principles of Listerism—Experiments with Trichinosed Meat—Intra Uterine Injections of Perchloride of Iron Solutions in Metrorrhagia—A Plaster Model of the Brain—Disposal of Debris of Cadavers.

In his opening address in the course of clinical surgery at the Necker Hospital, Professor Le Fort chose for his subject the principles of Listerism, or the modern system of antiseptic treatment in surgery, which he has just published under the title of "Les Pansements et la Mortalité." After examining in this essay the results of treatment of wounds and of the puerperal state from the earlier part of this century, he concludes that a large mortality used to be looked upon as inevitable, and supposed to be brought about by atmospheric influences, or by some agent whose nature was undefinable. The author believes that he was the first to indicate clearly that contagion was the sole cause of the difference of mortality in hospital and in private practice, and that consequently, surgical and other dressings ought to have for their object the destruction of germs which might be the starting point of infection. Professor Lister's doctrine "applies only to recent wounds, and does not take into consideration contagion but seeks to prevent suppuration in the destruction, by means of carbolic acid, of the fermentation-germs contained in the air."

Prof. Le Fort attributes the various infections to *contagion*, and he regards the agent of this contagion "as a contagion germ of unknown nature (but possibly a special microbe), developing primarily, if not spontaneously, under various influences in a patient who has been subjected to operation, and which emphatically requires us to guard against carrying the active principle of contagion into a wound." He considers that the doctrine of M. Pasteur, so justified in its application to fermentation and putrefaction, applies to surgery, when it is used to explain alteration of normal or pathological liquids by contact with the air. The alteration of these liquids by the ferment changes can give rise to septic poisoning, but ferments cannot create morbid entities like pyæmia, erysipelas, typhoid fever, cholera, scarlatina, etc., which are characterized by a special contagion-germ transmissible in each case. While ridiculing the minutiæ of the Listerian principles and practice, he recognizes that the adoption of the Listerian antiseptic dressing has been attended with a notable reduction of mortality in hospitals, and that many operations have been made much less dangerous In fact, in trying to oppose the fermentation-germ, the dressing of Lister has opposed the contagion-germ The good results thus obtained are, according to Le Fort, due to the principles he has himself adopted for a long time as a consequence of his belief in contagion-germs Thus it may be seen that, while both these eminent surgeons have been working with the same materials, but on essentially different theories, they have arrived at the same satisfactory results Prof Le Fort, however, accords to Sir Joseph Lister the credit of having introduced into surgical practice his special mode of dressing, which has proved such a boon to wounded patients

A great deal has been said and written on the deleterious influence of trichinosed meat used as food, but according to M Duprez, Veterinary Inspector of the butchers' shops in Paris, this is not so great as has been claimed In a note to the Biological Society of Paris, he gives an account of some experiments performed by him with trichinosed meat Two series of rats were fed with American pork, containing trichinæ One set of rats was fed daily with a mixture composed of 10 grammes of trichinosed pork, 20 grammes of bread and a little water, the second set got 15 grammes of the pork with a little water, but no bread At the end of three weeks, no accident was observed, with the exception of a slight diarrhœa Fragments of muscles taken from the animals in a living state, contained no trace whatever of trichinæ

A great many gynecologists employ intra uterine injections of solutions of the perchloride of iron in cases of metrorrhagia, which, it is true, might stop the hæmorrhage, but Dr Sirédey, of the Lariboisière Hospital, absolutely condemns the practice for the following reasons The perchloride of iron nearly always determines a violent inflammation in the parts with which it is in contact, extending even to sloughing Dr Sirédey, therefore, prefers to have recourse to the other means usually employed in such cases, such as the tamponment, subcutaneous injections of ergotine, when one is sure that it is not a case of threatening abortion He also employs cauterizations of the mucous membrane of the uterus with the nitrate of silver melted on the extremity of the uterine caustic holder, which is much easier of application than the injections of the perchloride of iron It rapidly stops the bleeding, without having any of the inconveniences of the iron, and may be employed in all cases of metrorrhagia which are not dependent on fibroma or cancer

Dr Luys has presented to the Paris Academy of Medicine a plaster model of a human brain made under his directions It is nearly four times larger than the natural size, nevertheless, it is an exact reproduction of the human brain, being enlarged from an impression taken from nature It is the first of its kind that has been made in France There is a plaster model of a human brain at the Anthropological Society of Paris, made according to the directions of Broca, but which is the synthesis of different cerebral regions copied from different subjects

Until recently, the *debris* of corpses used for dissections have been buried in the cemetery of Montparnasse only A decree just published by the Prefect of the Seine authorizes them to be incinerated in a special apparatus established in the Père la Chaise, or to be buried in one of the other cemeteries of Paris A B

Paris, August 21, 1885

DOMESTIC CORRESPONDENCE

THE INTERNATIONAL MEDICAL CONGRESS

To the Editor of the Journal

Dear Sir —In the discussion by various medical journals, of the propriety of the action of the American Medical Association in arranging for the meeting of the Medical Congress at Washington in 1887 much has been said, and with an evidently malicious animus on the part of some to discredit the action of the Association They claim that in all instances the Congress has been convened only by the action of the *profession* of the country where it meets A brief reference to *facts*, will perhaps place the position of the invitation clearly before your readers

At the annual meeting of the American Medical Association held at Washington, May 6, 1884, "at which there were more than 1,200 regularly registered members (of the profession) present,"[1] Dr Austin Flint, President, in his official address, stated the origin of the Association and the objects for which it was formed in 1847, these being for "the protection of their interests, for the maintenance of their honor and respectability, for the advancement of their knowledge and the extension of their usefulness, for exciting and encouraging emulation and concert of action in the profession, and for facilitating and fostering friendly intercourse between those who were engaged in it" He fully showed how, during thirty-eight years, these objects had been faithfully carried out, to the great benefit of medical men He then subsequently said "Our Association, both by precept and example, has aimed to facilitate and foster friendly intercourse between those engaged in the practice of medicine, and these should not be limited to our own country As the means of union for these objects of the medical *profession* of all countries, the International Medical Congress claims a warm interest, and it would prove, as I doubt not, a source of great gratification to the *profession* of our country, if the meeting of the Congress in 1887 were to be held in the United States, and I suggest the propriety of action to be taken *now*, with reference to this desirable end *Inasmuch as the invitation should be in behalf of the profession of the whole country and not of any particular section, it appropriately should come from the American Medical Association* If the suggestion be favorably received, it seems to me advisable that a Committee be appointed *with instructions* to carry an invitation *from this Association*, through *its* delegates, to the Congress at Copenhagen The Committee may also be empowered to designate the time and place of meeting of the Congress in 1887, and to take such other preliminary steps as may appear to the Committee to be requisite My suggestion in regard to the International Congress is not made solely on my own responsibility, but at the instance *of several, well known for their active interest in the welfare of the American medical profession*" The only one of these specially named was the late Professor Samuel D Gross The origin of the invitation is thus clearly established, it was an invitation by 1,200 members of the medical profession in the United States, through a committee of delegates from the American Medical Association, to the Congress at Copenhagen

---

[1] Journ Am Med Assoc May 17 1884 p 550

[2] The italics are mine

I have no wish to discuss the action of the Committee subsequently appointed as "delegates to the Congress," with a special object Their sole status in the Congress arose from the authority given them by *the Association* By all parliamentary law, as well as courtesy to those who entrusted them with their mission, their duty was to report their action to the next meeting of the Association at New Orleans When the Association accepted their report, they were *ipso facto* discharged, and further action on the subject rested with the Association The action taken at New Orleans by the Association was correct in parliamentary law and approved by high parliamentary authority The subsequent action of the Committee to whom the subject *was recommitted*, can only be correctly known when its official report is made at St Louis, and all discussion of their action now is improper, because based on rumor and not on facts The Association alone can give a value to the acts of the Committee by accepting their report

AN OLD MEMBER OF THE MEDICAL PROFESSION
Philadelphia, Sept 9, 1885

BOOK REVIEWS

A PRACTICAL TREATISE ON DISEASES OF THE KIDNEYS, AND URINARY DERANGEMENTS By CHARLES HENRY RALFE, M A, M D (Cantab) Fellow of the Royal College of Physicians, London, Assistant Physician to the London Hospital Formerly Senior Visiting Physician to the Seamen's Hospital, Greenwich, etc, etc London 8vo, pp 572 H K Lewis & Co, 1885 Philadelphia P Blakiston, Son & Co

The first chapter of this book deals with the general symptomatology of renal diseases, as manifested through derangements of the nervous, vascular, respiratory, digestive, cutaneous and urinary systems

The second chapter is devoted to the clinical examination of the urine, which the author's ready clinical knowledge enables him to render extremely practical, and clear in detail Something over a hundred pages are devoted to this very important subject

The several forms of nephritis are next considered in detail With regard to the nephritis of pregnancy, which heretofore has generally been considered as arising mostly during the last months of gestation, the author writes "it would be more accurate, however, to state, that it is rarely met with before the end of the third month, and, that it hardly ever develops after the seventh month" With regard also to the generally accepted statement, that primiparæ are more liable to nephritis than women who have already born children, the author says "this statement, however, requires modification, and it should rather be, that women who have not been the subject of nephritis in their first pregnancy, are less liable to the disease in subsequent pregnancies, and that the risk is diminished with successive pregnancies" These points it will be observed, are important as bearing on the cause of nephritis of pregnancy, which just now, is the subject of more or less dispute among authors In the treatment of ordinary cases of acute nephritis, the author advises the avoidance of the more active eliminative measures, such as cathartics, diaphoretics, and diuretics, limiting these for the most part to cases attended with suppression of urine, and acute uræmia In these last conditions also, absolute non-nitrogenous diet is advised for at least two days after which, slight relaxation of this rigid dietetic requirement is permitted, if there is manifest improvement The milk treatment, which has of late become revived, and perhaps we may say, is so justly popular, the author points out should not be employed in acute stages of nephritis, as in such conditions, he has even observed harmful results follow its use In sub acute, or chronic nephritis, however, he has found its employment often highly beneficial, fequently causing rapid disappearance of albuminuria, and other threatening symptoms

Suppurative inflammations of the kidneys, pelves, ureters, and surrounding tissues, are next considered individually Among these, of special interest will be found the section on Pyelo-Nephrosis, (surgical kidney) "catheter fever" of Sir Andrew Clark, or what is perhaps most appropriately termed by Dickinson, "uriseptic kidney" The author advises, when as is usually the case in this affection, the urine is ammoniacally putrescent, the internal administration of quinine, and boracic acid, "the latter having the advantage possessed by few other antiseptic remedies, of passing unchanged through the kidneys, it therefore acts upon the whole urinary tract" The author also suggests as a local measure, washing out the bladder with antiseptic solutions in such cases, while we believe that this fever is more often precipitated by the hyperæmia, consequent on reflex irritation produced by the introduction of instruments into the bladder, than by the actual introduction of septic matter in catheterizing, etc, yet we agree with the author that after the mischief is once lighted up, "there is less risk in completely emptying the bladder, than in allowing foul urine to accumulate" In a recent case in point, we attribute its successful issue very largely to washing out the bladder twice daily with an antiseptic solution

Degenerations, new growths, and parasites of the kidneys, constitute the subjects of the next three chapters

Diabetes insipidus and mellitus are considered at length in chapter nine In the medicinal treatment of diabetes mellitus, the author seems to rely more operations have been made much less dangerous. In fact, in trying to oppose the fermentation-germ, the dressing of Lister has opposed the contagion-germ. The good results thus obtained are, according to Le Fort, due to the principles he has himself adopted for a long time as a consequence of his belief in contagion-germs. Thus it may be seen that, while both these eminent surgeons have been working with the same materials, but on essentially different theories, they have arrived at the same satisfactory results. Prof. Le Fort, however, accords to Sir Joseph Lister the credit of having introduced into surgical practice his special mode of dressing, which has proved such a boon to wounded patients.

A great deal has been said and written on the deleterious influence of trichinosed meat used as food, but according to M. Duprez, Veterinary Inspector of the butchers' shops in Paris, this is not so great as has been claimed. In a note to the Biological Society of Paris, he gives an account of some experiments performed by him with trichinosed meat. Two series of rats were fed with American pork, containing trichinæ. One set of rats was fed daily with a mixture composed of 10 grammes of trichinosed pork, 20 grammes of bread and a little water, the second set got 15 grammes of the pork with a little water, but no bread. At the end of three weeks, no accident was observed, with the exception of a slight diarrhœa. Fragments of muscles taken from the animals in a living state, contained no trace whatever of trichinæ.

A great many gynecologists employ intra-uterine injections of solutions of the perchloride of iron in cases of metrorrhagia, which, it is true, might stop the hæmorrhage, but Dr. Siredey, of the Lariboisière Hospital, absolutely condemns the practice for the following reasons: The perchloride of iron nearly always determines a violent inflammation in the parts with which it is in contact, extending even to sloughing. Dr. Sirédey, therefore, prefers to have recourse to the other means usually employed in such cases, such as the tamponment, subcutaneous injections of ergotine, when one is sure that it is not a case of threatening abortion. He also employs cauterizations of the mucous membrane of the uterus with the nitrate of silver melted on the extremity of the uterine caustic holder, which is much easier of application than the injections of the perchloride of iron. It rapidly stops the bleeding, without having any of the inconveniences of the iron, and may be employed in all cases of metrorrhagia which are not dependent on fibroma or cancer.

Dr. Luys has presented to the Paris Academy of Medicine a plaster model of a human brain made under his directions. It is nearly four times larger than the natural size, nevertheless, it is an exact reproduction of the human brain, being enlarged from an impression taken from nature. It is the first of its kind that has been made in France. There is a plaster model of a human brain at the Anthropological Society of Paris, made according to the directions of Broca, but which is the synthesis of different cerebral regions copied from different subjects.

Until recently, the *debris* of corpses used for dissections have been buried in the cemetery of Montparnasse only. A decree just published by the Prefect of the Seine authorizes them to be incinerated in a special apparatus established in the Père la Chaise, or to be buried in one of the other cemeteries of Paris. A. B.

Paris, August 21, 1885.

DOMESTIC CORRESPONDENCE

THE INTERNATIONAL MEDICAL CONGRESS

TO THE EDITOR OF THE JOURNAL:

Dear Sir:—In the discussion by various medical journals, of the propriety of the action of the American Medical Association in arranging for the meeting of the Medical Congress at Washington in 1887 much has been said, and with an evidently malicious animus on the part of some to discredit the action of the Association. They claim that in all instances the Congress has been convened only by the action of the *profession* of the country where it meets. A brief reference to *facts*, will perhaps place the position of the invitation clearly before your readers.

At the annual meeting of the American Medical Association held at Washington, May 6, 1884, "at which there were more than 1,200 regularly registered members (of the profession) present,"[1] Dr. Austin Flint, President, in his official address, stated the origin of the Association and the objects for which it was formed in 1847: these being for "the protection of their interests, for the maintenance of their honor and respectability, for the advancement of their knowledge and the extension of their usefulness, for exciting and encouraging emulation and concert of action in the profession, and for facilitating and fostering friendly intercourse between those who were engaged in it." He fully showed how, during thirty-eight years, these objects had been faithfully carried out to the great benefit of medical men. He then subsequently said: "Our Association, both by precept and example, has aimed to facilitate and foster friendly intercourse between those[2] engaged in the practice of medicine, and these should not be limited to our own country. As the means of union for these objects of the medical *profession* of all countries, the International Medical Congress claims a warm interest, and it would prove, as I doubt not, a source of great gratification to the *profession* of our country, if the meeting of the Congress in 1887 were to be held in the United States, and I suggest the propriety of action to be taken *now*, with reference to this desirable end. *Inasmuch as the invitation should be in behalf of the profession of the whole country and not of any particular section, it appropriately should come from the American Medical Association.* If the suggestion be favorably received, it seems to me advisable that a Committee be appointed *with instructions* to carry an invitation *from this Association*, through *its* delegates, to the Congress at Copenhagen. The Committee may also be empowered to designate the time and place of meeting of the Congress in 1887, and to take such other preliminary steps as may appear to the Committee to be requisite My suggestion in regard to the International Congress is not made solely on my own responsibility, but at the instance of *several, well known for their active interest in the welfare of the American medical profession*" The only one of these specially named was the late Professor Samuel D Gross The origin of the invitation is thus clearly established, it was an invitation by 1,200 members of the medical profession in the United States, through a committee of delegates from the American Medical Association, to the Congress at Copenhagen

---

[1] Journ. Am. Med. Assoc., May 17, 1884, p. 550.

[2] The italics are mine.

I have no wish to discuss the action of the Committee subsequently appointed as "delegates to the Congress," with a special object Their sole status in the Congress arose from the authority given them by *the Association* By all parliamentary law, as well as courtesy to those who entrusted them with their mission, their duty was to report their action to the next meeting of the Association at New Orleans When the Association accepted their report, they were *ipso facto* discharged, and further action on the subject rested with the Association The action taken at New Orleans by the Association was correct in parliamentary law and approved by high parliamentary authority The subsequent action of the Committee to whom the subject *was recommitted*, can only be correctly known when its official report is made at St Louis, and all discussion of their action now is improper, because based on rumor and not on facts The Association alone can give a value to the acts of the Committee by accepting their report

AN OLD MEMBER OF THE MEDICAL PROFESSION
Philadelphia, Sept 9, 1885

BOOK REVIEWS

A PRACTICAL TREATISE ON DISEASES OF THE KIDNEYS, AND URINARY DERANGEMENTS By CHARLES HENRY RALFE, M A, M D (Cantab) Fellow of the Royal College of Physicians, London, Assistant Physician to the London Hospital Formerly Senior Visiting Physician to the Seamen's Hospital, Greenwich, etc, etc London 8vo, pp 572 H K Lewis & Co, 1885 Philadelphia P Blakiston, Son & Co

The first chapter of this book deals with the general symptomatology of renal diseases, as manifested through derangements of the nervous, vascular, respiratory, digestive, cutaneous and urinary systems

The second chapter is devoted to the clinical examination of the urine, which the author's ready clinical knowledge enables him to render extremely practical, and clear in detail Something over a hundred pages are devoted to this very important subject

The several forms of nephritis are next considered in detail With regard to the nephritis of pregnancy, which heretofore has generally been considered as arising mostly during the last months of gestation, the author writes "it would be more accurate, however, to state, that it is rarely met with before the end of the third month, and, that it hardly ever develops after the seventh month" With regard also to the generally accepted statement, that primiparæ are more liable to nephritis than women who have already born children, the author says "this statement, however, requires modification, and it should rather be, that women who have not been the subject of nephritis in their first pregnancy, are less liable to the disease in subsequent pregnancies, and that the risk is diminished with successive pregnancies" These points it will be observed, are important as bearing on the cause of nephritis of pregnancy, which just now, is the subject of more or less dispute among authors In the treatment of ordinary cases of acute nephritis, the author advises the avoidance of the more active eliminative measures, such as cathartics, diaphoretics, and diuretics, limiting these for the most part to cases attended with suppression of urine, and acute uræmia In these last conditions also, absolute non-nitrogenous diet is advised for at least two days, after which, slight relaxation of this rigid dietetic requirement is permitted, if there is manifest improvement The milk treatment, which has of late become revived, and perhaps we may say, is so justly popular, the author points out should not be employed in acute stages of nephritis as in such conditions, he has even observed harmful results follow its use In sub acute, or chronic nephritis, however, he has found its employment often highly beneficial, fequently causing rapid disappearance of albuminuria, and other threatening symptoms

Suppurative inflammations of the kidneys, pelves, ureters, and surrounding tissues, are next considered individually Among these, of special interest will be found the section on Pyelo Nephrosis, (surgical kidney) "catheter fever" of Sir Andrew Clark, or what is perhaps most appropriately termed by Dickinson, "uriseptic kidney" The author advises, when as is usually the case in this affection, the urine is ammoniacally putrescent, the internal administration of quinine, and boracic acid, "the latter having the advantage possessed by few other antiseptic remedies, of passing unchanged through the kidneys, it therefore acts upon the whole urinary tract" The author also suggests as a local measure, washing out the bladder with antiseptic solutions in such cases, while we believe that this fever is more often precipitated by the hyperæmia, consequent on reflex irritation produced by the introduction of instruments into the bladder, than by the actual introduction of septic matter in catheterizing, etc, yet we agree with the author that after the mischief is once lighted up, "there is less risk in completely emptying the bladder, than in allowing foul urine to accumulate" In a recent case in point, we attribute its successful issue very largely to washing out the bladder twice daily with an antiseptic solution

Degenerations, new growths, and parasites of the kidneys, constitute the subjects of the next three chapters

Diabetes insipidus and mellitus are considered at length in chapter nine In the medicinal treatment of diabetes mellitus, the author seems to rely more largely upon opium Vapor baths are highly commended also in these cases Thus the author writes with regard to the latter, "It is strange that such an efficacious aid to our treatment, should have been persistently overlooked by recent English writers on the subject" The preparations of arsenic, including the bromide, which has attained some popularity of late in America, is not spoken of with much favor, save in cases complicated with malaria

Stone and gravel are systematically considered in the succeeding chapter The author holds that the nuclei of renal calculi, take their origin in the renal cells of the convoluted tubes, by retention within them of uric acid, oxalate of lime, or phosphate of lime "owing to some vital impairment of their (the cells) function," and that this is the origin of all urinary calculi, except those formed upon some foreign substance introduced from without into the bladder

Functional albuminuria, peptonuria, and hæmoglobinuria, comprise an interesting chapter at the close of the work Of late an impression has gained some belief, that albumin occurs quite often in the urine of perfectly healthy persons, indeed, some authors, notably Senator, claim that normal urine is always "feebly albuminous" Certain experiments of late conducted on a large scale, notably those of Capitan and Chateaubourg, would seem to show that albumin is present in the urine of a majority of healthy people The author, however, does not believe in the existence of so called physiological albuminuria In his own experience, albumin has not been found in to exceed three per cent of the cases met with in applications for life insurance He points out that the discrepancy between the results obtained by different observers is probably due to the use of imperfectly corrected tests Thus, the experiments of Capitan and Chateaubourg were conducted by means of the potassio mercuric iodide test, which, the author correctly says, precipitates many other bodies besides albumin Thus, in the case of 94 soldiers experimented upon by Chateaubourg, the above test "gave a precipitate with 76 urines, whilst heat only once proved the presence of albumin"

The occasional appearance of albumin in the urine of those whose kidneys are not organically damaged, the author concedes, and discusses these under such causes as derangements of digestion, disturbed innervation, altered conditions of the blood, etc, etc An appendix is added, containing rules for quantitative analysis for urea, hippuric acid, phosphoric acid, sulphuric acid, hydrochloric acid, albumin, and sugar in the urine, and also one containing a diet list for diabetics

It will thus be noted that the scope of the work is quite extensive, including practically all renal diseases, functional and organic, the language is clear and concise, the text unincumbered by *theoretical* discussions, while the whole matter is thoroughly up with present knowledge on the subject, admirably adapting it for the use of students Footnotes are entirely dispensed with, references being inserted in their appropriate places in the text in parenthesis, and we should be glad to see this excellent example more generally followed, especially in text-books

The author is already favorably known in America as the writer of a work on "Clinical Chemistry," and also one on "Morbid Conditions of the Urine Depending on Derangements of Digestion," and the present volume more than sustains the high reputation gained by its predecessors We congratulate Dr Ralfe on having written one of the best text books on renal diseases to date, if, indeed, not the best

MISCELLANEOUS

NEW YORK STATE MEDICAL ASSOCIATION—FIFTH DISTRICT BRANCH —The first *annual* meeting of the Fifth District Branch will be held in Brooklyn, on Tuesday, October 13th, 1885 There will be a morning and afternoon session

All Fellows desiring to contribute to the meeting, either by reading papers, notes or communications, or by exhibiting specimens, are respectfully invited to notify the Secretary, E H Squib, M D, 36 Doughty Street, Brooklyn, to that effect at their earliest convenience

REVACCINATION IN GERMANY —The commission appointed by the German Government last fall on the subject of vaccination and its effects as a preventive of small pox, report that since 1874, when revaccination was strictly enforced (it had been partially in vogue for some years before), not one death has occurred in the German army, while in those of Austria and France, where revaccination is not enforced, and where the soldiers mix with a population but imperfectly vaccinated, the mortality has been high, ranging from ten to twenty five per hundred thousand in the Austrian, and from seventeen to twenty nine in the French Comparison of the ravages of the disease in the large cities of Europe was also made, in all cases the results being largely in favor of Germany These facts are held to show that revaccination confers almost complete immunity from small pox, and justify the enforcement of the ordinance by the German health authorities

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM SEPTEMBER 5 1885 TO SEPTEMBER 11 1885

McKee J C, Major and Surgeon, sick leave still further extended three months, on surgeon's certificate of disability (S O 204, A G O, Sept 7 1885)

Patzki, J H, Capt and Asst Surgeon, assigned to duty as post surgeon, Jackson Barracks, New Orleans, La (S O 192, Dept of the East, Sept 8, 1885)

Kane, Jno J, upon expiration of his present leave of absence to be relieved from duty at Willet's Point, N Y H, and to report to the commanding general Dept of Texas for assignment to duty (S O 201, A G O, Sept 3 1885)

Richards, Chas, Capt and Asst Surgeon, to be relieved from duty in Dept of the East, and to report to the commanding officer Willet's Point, N Y, for duty at that station (S O 201, C S, A G O

Polhemus, A S, First Lieutenant and Asst Surgeon, when relieved at Ft McDermit, Nev, assigned to temporary duty at Presidio of San Francisco, Cal (S O 87, C S, Dept of California)

Kendall, Wm P, First Lieutenant and Asst Surgeon, relieved from duty at Presidio of San Francisco, Cal, and assigned to duty as post surgeon at Ft McDermit, Nev, relieving Asst Surgeon Polhemus S O 87, Dept of Calif, Aug 31, 1885)

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY
Vol V Chicago, September 26, 1885 No 13

ORIGINAL ARTICLES

THE SURGICAL TREATMENT OF CYSTS OF THE PANCREAS[1]

BY N SENN, M D,
OF MILWAUKEE WIS

TOPOGRAPHICAL ANATOMY

For a correct interpretation of the signs and symptoms of cysts of the pancreas, and for an accurate understanding of the relations of this organ to surrounding parts in their surgical treatment, it becomes necessary to allude briefly to the topographical anatomy of the pancreas The pancreas is a tongue shaped gland placed transversely in the abdomen, at a point opposite the first lumbar vertebra behind the stomach, reaching from the hilus of the spleen to the concavity of the duodenum Its right end, termed the head, is embraced by the curvature of the duodenum, whilst its left or caudal extremity is in contact with the spleen After opening the abdominal cavity in cadavers, it can be distinctly felt as a firm body through the walls of the stomach The organ is made accessible and exposed to sight by cutting the ligamentum gastro colicum transversely, and by pushing the stomach upwards and the transverse colon downwards In the saccus epiploicus, which has now been opened, the gland is seen in front of the large vessels It presents three surfaces for examination The anterior surface, somewhat concave, is in contact with the stomach throughout its entire extent, but separated from it by a covering from the omental bursa which renders the surface smooth and well adapted for the free movements of the stomach The posterior surface is separated from the spine by the vena cava, aorta, the superior mesenteric artery, and vein, the pillars of the diaphragm, and towards the liver, the vena porta, as well as numerous lymphatic vessels and glands, all of which are firmly connected with this surface, and the spine, by connective tissue To the left of the vertebral column it is attached in the same manner to the left suprarenal capsule, kidney, and renal vessels The superior mesenteric artery and vein are embraced by the substance of the gland, so as sometimes to enclose these vessels in a complete canal The inferior surface is narrow and directed toward the transverse colon, it rests at one end on the junction of the duodenum and jejunum, at the left end on the extremity of the transverse colon The intervening middle portion of the inferior surface has a special peritoneal covering derived from the lower layer of the mesocolon *Along the posterior surface and upper border of the gland are placed the splenic artery and vein, both pursuing a tortuous course from right to left* The cœliac axis is above the pancreas The common bile duct is in close relation to the head of the gland, passing down along its posterior surface, and is generally received into a groove or canal in its substance

The common pancreatic duct, or canal of Wirsung, is widest near its entrance into the duodenum, where it is from one twelfth to one ninth of an inch in diameter Before its termination it unites with the common bile duct in the wall of the intestine, at the junction of the second and third portions of the duodenum, between three and four inches below the pyloric orifice of the stomach The lower extremity of the head, where it curves behind the mesenteric artery and vein, is sometimes marked off from the rest, and is then called the *lesser pancreas*, with a special duct which joins the common duct in the substance of the head of the pancreas The pancreas receives its blood supply from the superior and inferior pancreatico-duodenal branches of the hepatic and superior mesenteric arteries The venous return takes place through the splenic and superior mesenteric veins The nerves are derived from the solar plexus

ACCESSORY PANCREAS

The pancreas, like many other glandular organs, sometimes presents rudimentary duplicities, and it is necessary to call attention to this fact for the purpose of considering the possibility of the origin of a pancreatic cyst from one of these appendages Rokitansky[1] mentions, as an exceedingly rare occurrence, duplicity of the pancreas and excessive development of accessory appendages A frequent variety is represented by the head of the gland—the pancreas minus—the duct of which usually terminates in the common duct, but sometimes as was first ascertained by Winslow it takes an independent course and empties into the duodenum about one to one and one half inches below the opening of the common duct More recently, Hyrtl has called attention to an accessory pancreas consisting of a few isolated acini of the gland behind the superior mesenteric artery and vein Klob has described an accessory pancreas distant and distinct from the normal organ, which was found between the muscular layers of the stomach, about the middle of the great curvature On another occasion he found a similar organ in the posterior wall of the jejunum, near its upper termination In both instances, the true glandular structure of these bodies was confirmed by microscopical examinations

---

[1] Read in the Section on Surgery and Anatomy at the Thirty Sixth Annual Meeting of the American Medica Association

[1] Nebenpancreas in der Darmwand Virchow's Archiv vol xxi, p 369

Zenker met with six instances of supernumerary pancreas The accessory organ was invariably in the walls of the intestine, three times in the highest convolution of the jejunum, twice near the duodenum, and in the last case in the upper portion of this portion of the intestinal tract In size the glands varied from a lentil to a silver dollar They were situated between the intestinal tunics, and presented a prominence on the serous surface Klob found no excretory duct in his specimens Zenker detected the terminal end upon the mucous surface of the intestinal canal in the shape of a slightly raised papilla which could be seen with the naked eye or by means of a magnifying glass The presence of pancreatic juice in the glands was also determined In all instances, the gland proper was found in its normal location and of natural size All patients were adults Like other accessory organs, the supernumerary pancreatic glands owe their origin to embryonal deposits of gland tissue Although, as yet, no instance has been observed of cystic formation from an accessory pancreas, there is no reason why such an occurrence should not take place, for the same reasons and in the same manner as has been observed in cases of cysts from supernumerary thyroid glands

PATHOLOGY AND MORBID ANATOMY

Cysts in the pancreas always result from retention of the secretion, and subsequent dilatation of the secretory duct, or, in case of laceration of this structure, *from extravasation of the secretion into the* parenchyma of the gland and subsequent distension of its capsule The size of the cyst is modified by the character and seat of the obstruction and its relative position to the secreting gland structure The walls of the cyst are usually thin, from over distension, in cases of rapidly growing cysts, or much thickened when the growth of the tumor has been slow and accompanied by chronic proliferation and induration of the connective tissue The cyst walls in chronic cases may become cartilaginous or even ossified The inner surface is either smooth, or it presents evidences of degeneration similar to those which occur on the internal surface of arteries in the later stages of endarteritis If the canal of Wirsung is obstructed at or near its proximal end, the entire duct and its branches may become dilated, presenting the appearance of varicose veins, or a more uniformly rounded cyst may form of the size of an orange, of a child's head, or even so large as to occupy the whole abdominal cavity, as in Bozeman's case As the cyst increases in size, the gland structure disappears by absorption in consequence of *intra cystic* pressure The same cause which constitutes the obstruction will often also lead to destruction of the parenchyma of the organ, by inducing a chronic *interstitial* pancreatitis which is followed by cirrhosis or fatty degeneration of the organ Virchow[1] alludes to cysts of the pancreas under the name of ranula pancreatica, and describes two essential and distinct varieties In the first class, the entire duct is found dilated, and resembles in appearance a rosary In the second variety, the outlet of the excretory duct is obstructed, and behind the seat of obstruction the duct undergoes cystic dilatation He mentions a case that came under his observation where such a cyst had attained the size of a fist" He believes that cicatricial contractions or pressure of tumors upon the duct constitute the most frequent source of obstruction Pancreatic juice in its purity is only found in small and recent cysts Later on, in old or large cysts, various accidental products are added Albuminoid degeneration or suppuration not unfrequently take place, or hæmorrhage may occur, so that the cyst contents assume a bright red or chocolate-colored appearance Pepper found in such a cyst numerous crystals of hæmatoidin, while Hoppe found in another instance urea in the proportion of 0 12 per cent as one of the constituents of the contents of the cyst The pressure of the cyst upon neighboring organs will result in secondary pathological conditions which will interfere with the physiological performance of the functions of other organs, thus endangering the life of the patient

ÆTIOLOGY

The causes which result in the formation of small cysts of the pancreas, or cysts which result from *compression by tumors, which in themselves do not* admit of an operation for the removal and at the same time constitute a source of danger to life, do not come within the scope of this paper In the latter instance the cyst is simply a sequence of the primary cause, and as such it will seldom, if ever, become the sole or direct object of surgical treatment The causes of retention in cysts amenable to operative treatment, are such which in themselves do not imperil the life of the patient They may be classified as follows 1 *Obstruction to the outflow of the secretion from impaction of calculi in the com* mon duct or its branches 2 Partial or complete *obliteration of a portion of the duct from cicatricial* contraction 3 Sudden or gradual obstruction of the duct without diminution of its lumen from displacements of the pancreas

1 Calculi —The impaction of the pancreatic duct at its outlet may be caused by the presence of a biliary calculus in the ductus communis choledochus, at the junction of the former with the latter A case of this kind has been reported by Engel[3] In such cases *the obstruction gives rise to retention of the* secretions from the liver, and the pancreas, and dilatation of the excretory ducts in both organs Calculous concretions in the pancreatic ducts have been frequently observed to give rise to retention cysts Johnston[4] has collected 35 cases, in which, upon post-mortem examinations, stony concretions were found in the pancreas. Incrustations are not as frequent as free concretions. Gendrin has described a pancreatic cyst where the normal pancreatic secretion was converted into a fatty, chalky pap. The causes which produce a concretion in the pancreatic duct are chemical changes in the secretion itself, or, an obstruction to its free exit by inflammatory changes in or around the common duct. The degree of dilatation, other things being equal, is in direct proportion to the completeness of the obstruction to the outflow of the secretion. It may be well to allude to the possibility that in some instances a pancreatic calculus may remain stationary for an indefinite period of time in the duct, giving rise to no symptoms, and only partial obstruction, until by the action of some determining cause, it is forced into a position where it effects complete mechanical obstruction to the outflow of the fluid, and a rapid increase in the size of the cyst. As an impacted biliary calculus may give rise to pancreatic obstruction, so a pancreatic calculus, when it is impacted at a point where compression of the common bile duct can take place, will produce icterus and dilatation of the gall bladder and bile ducts. Meckel has reported such a case.[1]

---

[1] Die Krankhaften Geschwuelste vol i p 276

[2] Ueber die Leucin u Tyrosin Abscheidung an der Leber Virchow's Archiv vol viii pp 360 361

[3] Oestr Med Jahrb vol xxiii and xxiv 1841

[4] Calculous and other affections of the Pancreatic Ducts Am Jour Med Sciences Oct 1883

Among the specimens of pancreatic cysts so far examined, which were caused by concretions, none of them had attained the size of those which have been submitted to surgical treatment. As in most of these preparations the calculi did not completely fill the calibre of the duct, they caused only partial obstruction which would furnish an explanation of the slow growth and comparatively small size of the tumor. In the specimen described by Gould,[2] it appears that the common duct was completely closed by two calculous concretions at its entrance into the duodenum, and this cyst had attained considerable size, in fact, it is the largest cyst on record where it was proved that the dilatation was caused by the presence of a calculus. As in the successful operations on cysts of the pancreas it has been impossible to ascertain the exact nature of the obstruction, the possibility of retention from a calculus cannot be eliminated with certainty.

2. *Cicatricial Contraction.*—Cicatricial contraction is always the result of an antecedent inflammation. The cicatrix may be located in the peri-pancreatic tissue or in the substance of the gland itself. Hoppe[3] made a post mortem examination of a patient who had been deeply jaundiced during life. The gall-bladder and bile ducts were distended with bile which contained blood, the pancreatic duct was also cylindrically dilated, and many of its branches were distended into cysts the size of a hazel nut. The cause of retention of both secretions was found in a dense cicatrix which surrounded both ducts at their duodenal termination. Interstitial inflammation in the gland itself and subsequent cicatricial contraction is one of the most frequent causes of retention. Wyss has reported a case where the interstitial inflammation was limited to portions of the head of the pancreas, through which the common bile duct and the ductus Wirsungii passed, and which had resulted in dilatation of the latter and its branches, which again compressed the bile duct, producing in this manner intense icterus.[1] Bécourt has given a description of a similar specimen which he found in the Strassbourg Pathological Museum. The patient had died of icterus. The gall bladder and bile ducts were found distended, the pancreas was converted into a dense tissue which, being cut into, presented a chalky deposit four to eight inches in length and of a yellowish color. The duct of Wirsung was dilated to such an extent as to form a large cyst which occupied the whole length of the pancreas, its walls being inseparable from the substance of the gland. In this case the interstitial inflammation was more extensive and the cyst was much larger. In the cases reported by Pepper and Hjett the obstruction was due to the same cause. In Curnow's case the common duct had become obliterated at its entrance into the duodenum by catarrhal inflammation. The pancreas was atrophic, and its duct was filled with numerous calculi. The pancreatic juice had become inspissated. The cystic duct of the gall bladder was impermeable, while in the common bile duct a number of small gallstones were found.[3]

I have failed to find in the literature an allusion to stricture of the duct, the result of traumatism. The pancreas is an exceedingly slender organ of loose and somewhat friable texture, and hence, although remotely located and well protected by surrounding organs, I am of the opinion that it is more frequently the seat of injury than has been generally supposed. If the stomach is empty and the abdominal muscles relaxed, a blow over the region of the pancreas may result in serious contusion or laceration of the organ without rupture of its envelope. Again, a well directed blow over either extremity of the gland may cause a laceration of its tissues by traction force, the organ being securely fixed in its place by firm connective tissue attachments. The clinical history of several cases of rapidly growing cysts tends to prove that obstruction occurred in this manner. If the duct escapes injury, the cicatricial contraction attending and following the reparative process in the lacerated gland tissue will gradually compress the duct, or by lateral traction change its direction and thus impede the outflow of the secretion. If the duct is ruptured at the time of injury its lumen may become completely filled by a thrombus which renders it impermeable, giving rise to retention and extravasation of the secretion primarily and secondarily, to definitive occlusion of the duct by cicatricial contraction at the point of injury. I am quite convinced that in the case which I have reported the retention was the direct result of traumatic stricture of the common duct. Although this view is not supported by evidence from post-mortem examinations, it is confirmed by analogous production of cysts in other locations. It is evident that this class of cases would furnish the most favorable conditions for successful surgical treatment.

---

[1] Koreff. Diss. sistens theoreticam considerationem icteri novis quibusdam causis simul superstructam. Halle, 1763.

[2] Anatomical Museum of the Boston Society. Boston, 1847, p. 174.

[3] Ueber einen abnormen Harnstoff enthaltenden pancreatischen Saft vom Menschen. Virchow's Archiv, vol. xi, p. 96.

[1] Zur Ætiologie des Stauungsicterus. Virchow's Archiv, vol. xxxvi, p. 455.

[2] Recherches sur le pancréas. Strassbourg, 1830.

[3] Trans. of the Path. Society of London, vol. xxiv.

3. *Obstruction from Displacement of the Pancreas.* As the pancreas is retained in its normal transverse position by the surrounding organs and connective tissue attachments, a relative change of position of portions of the gland would result in a bending of the organ and obstruction in the duct at the point of flexion. This condition was the cause of retention in a case related by Engel,[1] who found in a woman 60 years of age that the tail of the pancreas formed a right angle upwards with the principal duct of the gland. A dislocation of this kind can occur in one of the following ways:

1. Abnormal relaxation of the connective tissue attachments of the gland permitting a portion of the organ to descend by its own weight lower in the abdominal cavity.
2. Pressure upon the gland by tumors or exudations.
3. Cicatricial contractions in the substance of the organ or peripancreatic space.

That the whole pancreas can become displaced is proven by the case reported by Dobrzycki. A man 50 years of age fell from a distance of some yards. Symptoms arising after the fall similar to those of a floating kidney. By palpation the displaced organ could be located. Saline fluid was vomited, resembling pancreatic juice. In the hypogastrium a movable tumor could be felt corresponding in position and shape to the pancreas.

DIAGNOSIS

The question of diagnosis can only be entertained in cases where the cyst has attained very considerable proportions. The most important points to be taken into consideration are the history of the case, the anatomical location of the tumor, and its relations to the surrounding organs. The cases which have been reported have occurred exclusively in adults. Sex appears to exert no determining influence. In a number of cases the clinical history alludes distinctly and forcibly to traumatism as the exciting cause. In Gussenbauer's case the beginning of the illness was traced to indiscreet eating and drinking.

In all instances of cystic tumors in the region of the pancreas, close inquiry should be made to ascertain the existence of antecedent inflammatory affections of the organ, or in its immediate vicinity. A history pointing towards the existence of a biliary or pancreatic calculi will also prove valuable in arriving at positive conclusions. Rapid growth of the tumor speaks in favor of its pancreatic origin. In Gussenbauer's, Kulenkampff's, and my own cases the tumor attained an enormous size within a few weeks. Considering the relations of these cysts to important surrounding organs, it is remarkable that they give rise to no serious symptoms aside from the pressure they exert upon adjacent organs. Pain is not a constant symptom, and when it is present it is due more to the causes which produce the cyst than the cyst itself. In this respect cysts of the pancreas form a counterpart to malignant disease when it affects this or neighboring organs. Emaciation is due either to coexisting affection of the gland, or the impairment of function of important organs by pressure of the cyst. It is never as marked in these cases as in malignant disease. The supervention of fatty stools would point towards the existence of some coexisting serious lesion of the pancreas rather than the existence of a simple cyst of the organ. This symptom was not found present, or it was overlooked, in all cases which have been operated upon. Of twenty-eight cases of stearrhœa, which were compiled by Ancelet, sixteen were examined post-mortem. In five of these there was occlusion of the ductus choledochus and pancreaticus; in three, occlusion of the pancreatic duct alone; in one, inflammation of the pancreas and some of the adjacent organs. In the remaining cases disease of the liver and the bowels or only marasmus, was found. In thirteen cases of pancreatic calculi collected by Johnston, only in three were fatty stools observed; in six cases, diarrhœa; in four cases, melaena; and constipation in the remaining six. The presence of fat in the stools is a symptom of great importance in the recognition of pancreatic disease, but that it is not of absolute diagnostic significance is proved by the well known fact that the same condition will follow upon the obstruction of the biliary passages and affections which impair the functional activity of other organs of digestion.

Obstruction of the principal duct impairs digestion more than when its distal extremity or one of the accessary ducts is involved. The actual illness of the patient is usually preceded, for a variable length of time, by more or less marked symptoms of gastro intestinal derangement, accompanied in some instances by pain in the region of the pancreas.

A peculiar color of the skin, which is believed by some to be characteristic of pancreatic disease, must be mentioned, as it was observed in several cases of calculous affection and cysts of the pancreas. The appearance presented by these patients is variably described as being unhealthy, pale-yellow, dirty, or earthy. The intimate relations of the cyst to the cœliac plexus will explain the cause of cœliac neuralgia which is met with in some of these cases. Atrophy of the cœliac plexus, from long continued pressure, may give rise to mellituria for the same reason that Klebs has affirmed, that partial extirpation or atrophy of the cœliac plexus will cause the presence of sugar in the urine. Diverse diseases of the pancreas have also been known to produce diabetes mellitus. Cases of this kind have been reported by Cowley (1788), Bright, Elliotson, Frerichs, Fles, Hartsen, Silver, Recklinghausen, Munk, Seegen, and Friedreich. Klebs demonstrated by his experiments that complete extirpation of the pancreas or ligature of its duct invariably gave negative results, as far as diabetes was concerned, and this may account for the fact that no sugar was found in the urine of the cases reported in this paper. The cyst, when exam med early, before it has attained considerable size, is always found in the region normally occupied by the pancreas The exact location, however, is not always uniform, as it will depend upon the portion of the pancreas from which the cyst has taken its primary origin It may be situated below the right lobe of the liver, as in Kulenkampff's case, in the epigastric region, as in Gussenbauer's case, or in the left hypochondrium, as noted in my case When the tumor has attained a large size, or occupies the whole abdominal cavity, it will be difficult, and in the latter instance impossible, to determine by any known means its primary origin In such cases it is of paramount importance to study its relations to adjacent organs The tumor is always and invariably situated in the bursa omentalis, and from this point, as it increases in size, it encroaches upon the space occupied by adjacent organs The stomach is pushed forward in all cases, and later to the right The transverse colon is displaced downwards, the spleen to the left, and the diaphragm and contents of the chest upwards The cyst being in direct contact with the diaphragm, it usually ascends and descends with the respiratory movements of the chest

---

[1] Op. cit.

[2] Fall von beweglicher Bauchspeicheldruse. Virchow u. Hirsch's Jahresb. 1878, vol. ii, p. 215.

[1] Etudes sur les maladies du pancréas. Paris, 1867.

[2] Op. cit.

In doubtful cases it will become necessary to inflate the stomach and colon, with a view to ascertain their relative position to the cyst If the patient is a female, and the tumor occupies the entire abdominal cavity, it will simulate cystic disease of the ovary so closely that a differential diagnosis between the two is impossible The cases reported by Luecke, Bozeman, and Rokitansky furnish adequate proof of the correctness of this statement The proximity of the abdominal aorta is such that the impulse of the artery is imparted to the tumor, which, however, pulsates only in one direction—away from the artery—a fact which will always distinguish it from an aneurism Unless the cyst is exceedingly tense a sense of fluctuation is always imparted by palpation Palpation is rendered difficult on account of the deep location of the pancreas and the rigidity of the recti abdominis muscles The normal pancreas can only be felt under certain favorable conditions Concerning this point Sir William Jenner says "By deeply depressing the abdominal walls about a hand's breadth below the umbilicus, by then rolling the subjacent parts under the hand (the stomach and colon must be empty), it might be possible to detect it in an individual who is thin, and whose tissues are lax" In case the examination is rendered difficult on account of great rigidity of the abdominal muscles, this obstacle can be overcome by examining the patient while under the influence of an anæsthetic An exploratory puncture with a fine and perfectly aseptic needle of a hypodermic syringe will not only add material diagnostic information by revealing the character of the cyst contents, but the procedure will also settle the question as to the existence or absence of adhesions between the cyst walls and the parietal peritoneum In the differential diagnosis the following affections will come up for consideration 1 Malignant disease of the pancreas or adjacent organs 2 Aneurism 3 Echinococcus of liver, spleen, or peritoneum 4 Affections of retroperitoneal lymphatic glands 5 Hydro or pyo nephrosis 6 Cystic disease of supra renal capsule 7 Circumscribed peritonitis with exudation 8 Ascites 9 Cystic disease of ovary

1 *Malignant Disease of the Pancreas or Adjacent Organs*—Carcinoma, or sarcoma of the pancreas or adjacent organs, as in every other locality, always manifest their presence by their most characteristic clinical features—pain, emaciation, and progressive local and general infection The age of the patient and the previous history of the case will also furnish important diagnostic information Large pancreatic cysts are unilocular, while, on the other hand, if a malignant tumor has undergone cystic degeneration, usually more than one cyst can be recognized Hardness and irregularity of surface speak in favor of malignancy, on the other hand, smoothness and a regular round or oval contour of the tumor are constant features of a pancreatic cyst The time which has elapsed since the beginning of the illness is also of importance A rapidly growing pancreatic cyst will assume a size in two or three weeks which even for a malignant tumor would require as many months

2 *Aneurism*—An aneurism of the abdominal aorta can be distinguished from a pulsating pancreatic cyst by its pulsations being felt in all directions, and by the presence of a bruit As a further test, the suggestion of Dr Pepper may be resorted to, which consists in placing the patient in the genu pectoral position, when the tumor, by gravitation, will leave the aorta and all pulsation will cease Steady pressure will diminish the volume of an aneurism, but will have no effect on a cyst of the pancreas

3 *Echinococcus Cysts*—Echinococcus cysts of the liver, spleen, or peritoneum could be easily mistaken for a cyst of the pancreas The peculiar fremitus sometimes felt on palpating an echinococcus cyst should always be sought for Multiplicity of cysts would decide in favor of something else than a pancreatic cyst The presence of hooklets in the aspirated fluid would furnish positive evidence in favor of the presence of an echinococcus cyst, while their absence would not exclude the possibility of the tumor being a sterile echinococcus cyst As the surgical treatment in both instances would be identical, it is sufficient for practical purposes to narrow the diagnosis down to a probable existence of either affection

4 *Affections of retroperitoneal lymphatic glands*—Neoplasms, inflammation, suppuration, or hypertrophy of the retroperitoneal glands behind the pancreas might simulate a pancreatic cyst, and as a wrong diagnosis in such an event might prove disastrous to the patient, and reflect discredit upon the surgeon, every diagnostic resource should be exhausted in order to prevent such error Enlargement of the lymphatic glands, from any cause, sufficient in extent to simulate a pancreatic cyst, would almost of necessity give rise to serious constitutional disturbances and extension of the disease to neighboring organs

5 *Hydro- or Pyo nephrosis*—In hydro- or pyonephrosis, the early clinical history will present a group of symptoms pointing toward some lesion in

the pelvis of the kidney, or ureter. A chemical and microscopical examination of the urine may furnish conclusive evidence of the existence of some renal affection which has produced the obstruction. Tumors of the kidney usually occupy a lower place and are more laterally located than tumors originating in the pancreas. In case of a pancreatic cyst, the lumbar region below the kidney is tympanitic, which is not the case in hydro- or pyo nephrosis. In case of doubt an exploratory puncture may enable us to arrive at a positive conclusion.

6. *Cystic disease of the suprarenal capsule.*—The suprarenal capsule may be the seat of cystic degeneration, and simulate a cyst of the pancreas so closely that a differential diagnosis is impossible. In Gussenbauer's case, the diagnosis remained doubtful between a cyst of the pancreas and a cyst of the suprarenal capsule. The bronzed skin so frequently observed in diseases of the suprarenal capsule has been also seen in affections of the pancreas. As the operative treatment in either case would be the same, it is not essential for practical purposes to make a positive diagnostic distinction between the two.

7. *Circumscribed peritonitis with exudation.*—Primary peritonitis, with a circumscribed exudation in the region of the pancreas, would reveal a history pointing toward an inflammatory affection accompanied by the usual symptoms attending inflammation of this membrane. Fever, pain, and tenderness are symptoms which are either foreign to the history of cysts of the pancreas, or, when present, they are less intense than in peritoneal inflammations. In peritonitis, the exudation would be necessarily in the peritoneal cavity, while pancreatic cysts always occupy the omental bursa.

8. *Ascites.*—The question of diagnosis between a cyst of the pancreas and ascites can only arise in case the whole abdominal cavity is distended by the tumor or effusion. The causes which produce ascites must be considered separately and individually, as they are usually of such a character as to exclude a suspicion of pancreatic disease, a satisfactory diagnosis can be reached without an exploratory puncture; but, if any doubt remains, this harmless procedure will furnish the requisite information.

9. *Cystic disease of ovary.*—From the cases reported we have gleaned that, in at least three cases, large cysts of the pancreas were mistaken for cystic disease of the ovary by surgeons of prominence and ability who made thorough and repeated examinations. It is not difficult to conceive that in case the tumor has assumed such dimensions as to fill the entire abdominal cavity, it would be impossible to differentiate between a cyst of the pancreas and the ovary, even by a most scrutinizing examination. The physical signs presented by either resemble each other so closely that they cannot be relied upon in discriminating one from the other. The early history of the case, if it can be obtained from a reliable source, is of more diagnostic value. In pancreatic cysts, the early symptoms are usually referred to disturbance of the digestive functions, and the patient has been aware of the presence of a tumor in the upper portion of the abdominal cavity. An ovarian tumor necessarily begins in the opposite portion of the abdominal cavity, and gives rise to pelvic distress and disturbances of the menstrual function. As the surgical treatment in both instances would be the same, it is practically not essential to make a positive distinction between the two before an exploratory incision will reveal the true nature and origin of the cyst. In recapitulation it may be stated that a positive diagnosis has so far not been made in a single instance, and that for all practical purposes it is only essential to make a probable diagnosis between a pancreatic cyst, or some other kind of a cyst, which would call for the same kind of surgical treatment. In very obscure cases, an exploratory incision, under antiseptic precautions, for diagnostic purposes, is a justifiable procedure.

PROGNOSIS

Physiologists are agreed in assigning to the pancreas a most important function in the digestion of organic food. We know that by a special ferment it assists in the transformation of starch into dextrine and sugar, and in the digestion of albumens and fat. We should naturally expect that in diseases of this organ the digestion of these substances would be impaired in proportion to the amount of gland tissue destroyed. *On the other hand, we have abundant* evidence to show that even total disorganization or destruction of the pancreas is not incompatible with normal digestion and perfect health. It would seem to appear that in the absence of the pancreatic secretion other organs assume a vicarious action, and digestion proceeds unimpaired. It is also important to remember that even a large cyst of the pancreas does not necessarily result in extensive destruction of the gland, and that the remaining gland tissue continues to secrete and discharge a sufficient amount of pancreatic juice. In Bozeman's case, the cyst occupied the entire abdominal cavity, and yet, at the operation, the greater portion of the gland was found healthy in structure. The integrity of the structure and function of the gland depends less on the pressure of the cyst than the causes which were concerned in its production. *The dangers arising from the cyst* itself consist in: 1. Its interference with the functions of other abdominal organs by pressure. 2. Rupture of cyst and escape of its contents into adjacent hollow organs or peritoneal cavity. Compression of the stomach and interference with its normal peristaltic action is a constant occurrence when the cyst has developed to any considerable size. When such is the case, vomiting soon after meals takes place, as was noted in a number of cases which have been reported. When the cyst is of very large size most all of the abdominal organs suffer by compression, and both digestion and absorption are impaired by mechanical pressure. The diaphragm being at the same time pushed upwards, the heart and lungs are displaced in the same direction, and embarrassment of circulation and respiration follows as a necessary sequence. Like any other benign abdominal tumor, the cyst proves dangerous to life by interfering mechanically with the functions of more essential and important organs. The second source of danger is rupture of the cyst and escape of its contents into adjacent organs, an accident which may be followed by immediate death from hæmorrhage, or the life of the patient is placed in jeopardy by suppurative inflammation in the interior of the cyst, or peritonitis in case the contents have escaped into the peritoneal cavity. In Pepper's case, the immediate cause of death was hæmorrhage consequent upon rupture of the cyst into the stomach.[1] At the post-mortem examination a large quantity of blood was found in the stomach and intestine, which had entered through an opening about one half inch in diameter, close to the proximal termination of the ductus communis. A probe passed through this opening directly entered a cyst in the head of the pancreas. A communication with any portion of the gastro-intestinal tract would almost of necessity lead to infection and suppurative inflammation in the interior of the cyst, which, under unfavorable circumstances, might lead to a fatal termination from septicæmia or extension of inflammation to adjacent organs. The prognosis may be said to depend: 1. On the nature and cause of obstruction. 2. Size of cyst. 3. The absence or presence of complications.

TREATMENT.

In the treatment of a pancreatic cyst, the indications are the same as in the treatment of any other kind of cysts, viz.: 1. Extirpation of the cyst. 2. Evacuation of its contents and obliteration of the cyst.

Extirpation was attempted in Bozeman's and Rokitansky's cases, in the former instance with complete success, in the latter the operation was not completed, and the patient died a few days afterwards, of septic peritonitis. It is proper to state that in both cases the operation was done for the removal of a supposed ovarian cyst and that a correct diagnosis was made in the first case during the operation, after the pedicle was traced to the pancreas and the intact portions of the gland were identified. In the second case the post-mortem examination revealed the true nature and location of the cyst. The brilliant result obtained by Dr. Bozeman is well calculated to stimulate others to follow his example. Extirpation of the cyst would guard most effectually against the formation of a permanent pancreatic fistula, but, on account of the deep location of the pancreas, shortness or absence of a pedicle, and the many obstacles thrown in the way of the operator by adjacent organs, the procedure becomes one surrounded by innumerable difficulties, and in the present state of our science, of doubtful propriety. Simple evacuation of the cyst contents by means of the aspirator, offers two principal objections against its adoption in the treatment of cysts of the pancreas: 1. Escape of cyst contents into the peritoneal cavity. 2. Re-accumulation of secretion.

Reasoning from analogy, we should naturally expect that when pancreatic juice is brought in contact with the peritoneum, it would produce a destructive effect upon it by its digestive properties, or, it might be even followed by diffuse peritonitis. In opposition to this assumption it is affirmed that in experiments on the pancreas it happens quite frequently, that pancreatic juice escapes into the abdominal cavity from the canula introduced into the pancreatic duct, without any bad results on the animals. Concerning this point Heidenhain[1] says: "The animals do not suffer from this circumstance as the duct is regenerated in spite of the wounded surface being bathed in the secretion. Nevertheless it is difficult to explain this. Why do not the wounded and suppurating tissues undergo digestion by the pancreatic juice? The efficacy of the albumin ferment is destroyed in some way I presume, probably by being changed into zymogen, the living tissues having the same effect on the juice as Podolinski observed by treating the pancreatic juice with pulverized zinc or yeast ferment." Although small quantities of pancreatic juice may escape into the peritoneal cavity of an animal without any serious consequences, we have no evidence to show that the peritoneal cavity in man is possessed of the same immunity against such accident, and it would not be prudent to expose a patient to such risk until more light is thrown on this subject by further observation and experiment. At the same time we must not forget that pure pancreatic juice is only found in small cysts, as the contents of large cysts have undergone various transformations, and are mixed with different accidental products, which might prove an additional source of danger in producing peritonitis. In all of the cysts where a pancreatic fistula was established, the artificial opening continued to discharge the secretion for a variable period of time, and in two cases the discharge had not ceased at the time the report was made, and hence re-accumulation would have been inevitable, in case the fluid had been removed by aspiration. For these reasons, the treatment by aspiration should be limited to cysts of moderate size, and where adhesions have formed between the cyst and the anterior walls of the abdomen. In cases presenting these favorable conditions, aspiration deserves a trial, and may be repeated as often as required, or until symptoms arise, which call for more radical measures. The needle should always be thoroughly disinfected by passing it through the flame of a spirit lamp, and by dipping it in a five per cent. solution of carbolic acid. The puncture is made obliquely, so as to prevent the formation of a fistulous opening. The fluid should be withdrawn slowly and the cyst emptied as completely as possible.

After the operation gentle pressure should be made over the cyst, by applying a compress and elastic bandage. The safest, and at the same time the most efficient treatment, consists in establishing a pancreatic fistula. The operation which accomplishes this purpose most safely and in the shortest time, consists in exposing the cyst by an incision, stitching its walls to the margins of the wound. The same aseptic precautions must be observed before, during, and after the operation, as in any other abdominal operation. The stomach being generally pushed forward, upward, and toward the right by the cyst, it is advisable to empty this organ completely as a preliminary measure by abstinence of food, and the use of the syphon irrigator Except in my case the incision was always made in the linea alba It seems to me that the incision should always be made over the most prominent part of the tumor, and as near as possible over the seat of obstruction In following this rule, we select the place where we are most apt to find adhesions, at the same time we establish the straightest and most direct route to the primary origin of the cyst An incision through the linea alba, or parallel with the costal arch, will afford the easiest access with a minimum risk of injury to important parts The external incision should be at least four inches in length, while the peritoneum should only be opened to the extent of two inches for the purpose of making an exploratory examination, to be enlarged as occasion may require If adhesions are found between the cyst and the omentum, and the omentum and the parietal peritoneum, the cyst is punctured with an exploratory needle, and, if the diagnosis is corroborated, the operation is finished by incising and draining the cyst If no adhesions are found between the omentum and peritoneum, the former is incised so as to expose the cyst wall, when either of the following plans may be pursued The parietal peritoneum is stitched to the skin with catgut The margins of the omental wound are pushed back under the abdominal walls so as to expose the cyst freely, when the wound is packed from the bottom with iodoform gauze, and an antiseptic dressing is applied and retained for six or eight days, or until adhesions have formed between the cyst and the margins of the wound which have effectually shut off the peritoneal cavity, when the cyst is incised and drained

---

[1] Amer. Journ. Med. Sciences, 1871, p. 159.

[1] Archiv f. d. gesammte Physiologie, vol. xii, p. 466.

Suturing of the cyst wall to the margins of the wound as a preliminary operation should never be resorted to, as on account of thinness of the cyst walls there is danger of escape of fluid into the peritoneal cavity from the punctures made by the needle, an occurrence which the procedure was intended to obviate With proper care, however, the operation can be completed at once The cyst wall is grasped with two many toothed forceps, and drawn forward so as to bring it in accurate and close contact with the margins of the wound, when the fluid is removed with an aspirator or trocar with the same care as in emptying an ovarian cyst As the cyst becomes empty it is pulled through the wound, which obviates any further danger of escape of fluid into the peritoneal cavity When the cyst is nearly empty it is freely incised and sutured to the peritoneal lining of the abdominal wound The drainage tube should be fully three-quarters of an inch in diameter, and must reach from the bottom of the cyst to the surface of the wound After emptying the cyst completely by compression, and placing the patient on his side, a large Lister dressing is applied for the purpose of guarding against infection, and to absorb the secretions Frequent change of dressing may be required on account of copious escape of pancreatic secretion Past experience would dictate the advisability of protecting the skin against the digestive action of the pancreatic juice by applying freely carbolated oil The antiseptic dressings should not be abandoned until the peritoneal cavity has become completely closed by firm adhesions, and the size of the cyst has been reduced to a fistulous tract The drainage tube is shortened from time to time, as the depth of the fistulous opening is diminished by obliteration of the cyst from the bottom of the tract The speedy obliteration of the cyst will depend on the continuance, abatement, or removal of the obstructing cause, or the condition of the gland tissue distal to the seat of obstruction If the stricture in the common duct of the pancreas is complete and of a permanent character, the obstruction will continue, and, if healthy gland tissue remains on the distal side, the fistula will continue to discharge pancreatic juice If the inflammation which caused the obliteration of the duct subsides, and the passage again becomes permeable, the natural outlet will be again established and the artificial duct will become obliterated If an impacted calculus has caused the retention, and the fistula continues to discharge, a careful examination should be made to detect the calculus, and, if found, an effort should be made to remove it through the fistulous opening If the obstruction has become permanent and the gland tissue on the distal side has become destroyed, either by the cause or causes which produced the obstruction, or by the intra cystic pressure, that portion of the organ has been deprived of its functional capacity, and, as no pancreatic juice is secreted, definitive obliteration of the cyst and permanent closure of the fistulous tract will take place in a comparatively short time

In recapitulation, I believe I am justified in submitting for your further consideration and discussion the following conclusions

1 Cysts of the pancreas are true retention cysts

2 Cicatricial contraction or obliteration of the common duct or its branches, and impacted calculi, are the most frequent causes of cysts of the pancreas

3 A positive diagnosis of a cyst of the pancreas is impossible, a probable diagnosis between it and some other kind of cysts amenable to the same surgical treatment, is adequate for all practical purposes

4 The formation of a pancreatic fistula under antiseptic precautions recommends itself as the safest and most expedient operation in the treatment of Cysts of the Pancreas

(To be concluded)

A SUGGESTION ON THE PROPER ALTERNATION OF REST WITH EFFORT, AS ESSENTIAL TO HEALTH AND STRENGTH[1]

BY JACOB I WILLIAMS, M D,
OF BOSTON MASS

In the early part of my professional pupilage, I heard a suggestion from the venerable Dr John C Warren, long since deceased, to this effect He said "When engaged in a long surgical operation of half an hour or more in duration, the eyes will sometimes become fatigued, and it will be difficult and unsafe to continue the operation with them in that condition

---

[1] Read in the Section of Dental and Oral Surgery at the Thirty Sixth Annual Meeting of the American Medical Association

It is better, under such circumstances, to raise the eyes and let them rest upon some object in a distant part of the room, or, if you can leave the operation, step to the window and look out for a minute or two; you will then return with the eyes refreshed, and can see as well as ever." And more recently, one of the most eminent of American oculists has written, that "one great cause of injury to vision is the *continuous* application of the eyes to book or work *after* they have become fatigued." This mention is made because the ideas therein contained represent a principle which holds good in the use of any faculty.

There is a very common belief that mere "exercise strengthens," without the recognition of any other element as necessary to that end. And so some seem to think that the more and longer they can possibly exert their faculties, the stronger they must be. As a result, we see fatigue carried to exhaustion, which is another name for weakening or debility.

Instances are common in various occupations and ages of individuals. The youth is too often crowded with study continuously through the day and perhaps a part of the night, till the mental process becomes actually debilitated, sometimes permanently. The business or professional man will not, or cannot pause for rest till he finds that he positively must, and sometimes not then, but drops at his post. The ambitious rower or pedestrian continues his exercise till his strength is absolutely gone, and sometimes his constitution shattered.

In our special department, the practitioner will labor too many hours continuously during the day, and perhaps the evening, till his nerves shake like so much loose cordage in the winds. And if he does not, as to my knowledge has occurred in one instance at least, fall dead by the chair, he finds a very long vacation needed to bring back a semblance of his former tone.

We also cannot ignore the fact that patients are too often allowed to suffer a continuance of endurance which has required days to recover from, and has sometimes been followed by more serious results. I emphasize the term *continuous* effort, because from that comes the harm when carried beyond the point of simple fatigue, on to the condition of exhaustion; that point of course, varying in different persons, and in the same person at different times.

This rule, then, should be learned, and the earlier the better, namely: to rest, if possible, just when we are tired, and to let our patients do the same.

SOME ERRORS IN PHYSICAL DIAGNOSIS.[1]

BY WM. PORTER, M.D.,

OF ST. LOUIS.

In this Association clinical facts are most in demand, and you are physicians in active practice with probably little time or inclination for the discussion of theories. I have, therefore, thought best that I should narrate briefly the history of a few cases in which errors have been made by myself and others in the early diagnosis. These have been selected not because of their rarity or because gross carelessness was exhibited in the examination, but rather because in each unusual conditions existed. In each was a hidden snag in the channel of investigation. May the record of them, and whatever of discussion may follow, make plainer sailing for all of us.

The first case is one in which the diagnosis at the initial examination was hæmoptysis. Mr. M., at 27, of slight figure but in fairly good general health, consulted me two years ago, after having had slight hæmorrhage, in which the blood came freely, though not in large quantities, mixed with mucus. At the time, he had a mild attack of acute bronchitis, and was somewhat hoarse. He referred to a well defined pain in the lower right clavicular region, and was impressed with the idea that there was the origin of the hæmorrhage. The bleeding had quite ceased before I saw him. Upon physical examination I found slight pharyngitis, some redness of the vocal cords, and laryngeal hyperæmia, and in the right infra clavicular region, at the place where he had the pain, there was some dulness and small mucous râles. There was mucous non-purulent expectoration, slight elevation of temperature, and pulse of 98. I felt, with this evidence, justified in giving a somewhat guarded opinion, though not based on his own conclusions. A few weeks after I saw him during a hæmorrhage, and he again referred to the pain in the chest. This time I found little or no dulness, and no râles or other symptoms of bronchial or pulmonary lesion. Looking into his pharynx I saw blood slowly trickling down from behind the soft palate, and with the rhinoscopic mirror found the lesion to be a ruptured superficial vessel high up on the posterior pharyngeal wall. A net work of these vessels, some of them much distended—a phlebecstasis pharyngea—explained the origin of the recurring hæmorrhage. At the first examination the local symptoms as well as the somewhat abnormal pulse and temperature were due to the bronchitis, from which he was convalescing, combined, as it may have been, with some localized lobular inflammation.

Hæmorrhage from the larynx and pharynx may, under certain conditions, be thought to be hæmoptysis, especially if there be present some abnormal bronchial or pulmonary condition. Laryngeal hæmorrhages are now well recognized phenomena, though not very often seen even by the laryngologist. Sometimes the lesion is sub mucous, as reported by Fraenkel[1] and Sommerbrodt,[2] when rapid infiltration of the laryngeal tissues results, and consequent dyspnœa. This class is not so likely to be mistaken for pulmonary hæmorrhage as where the laryngeal lesion is capillary. Here there may be a more or less profuse bleeding without pronounced subjective laryngeal symptoms. Hartman[3] reports such a case in which had there been no laryngoscopic examination, the hæmorrhage would undoubtedly have been thought to be of bronchial origin. Hæmorrhages from the pharynx may also, as in the example given, be relegated to pulmonary origin. There are few cases of bleeding from the air passages in which a pharyngeal and laryngeal examination should be omitted, if only to confirm a diagnosis by exclusion.

---

[1] Read before the Missouri Valley Medical Society, Sept. 9, 1885.

[1] Berlin Klin. Wochenschrift, 1874.
[2] Berlin Klin. Wochenschrift, 1878.
[3] American Laryngological Association, 1879.

The next case is one in which, while there was no doubt of the location of the disease, the error was as to the nature of it. I quote from my case book of 1876. Mr. T., æt. 50, came under notice in September of that year, with the physical signs of phthisis sufficiently well marked to warrant a diagnosis. There was a dulness over a small area two and one-half inches below the left clavicle prolonged expiration, cough, expectoration and shortness of breath. The patient was losing flesh rapidly, and was very weak. At first I did not suspect what now seems to have been the true nature of the disease, and he was treated as an ordinary case of phthisis. He returned to his home in the country, but grew worse, until October, when I saw him again. He then complained of pain over the tibia, and had frequent headaches. Upon inquiry he gave a history of syphilis contracted twelve years before but thought he had been entirely cured. Under specific treatment he was relieved of his pain, and his pulmonary symptoms became less urgent. Thinking from this that syphilis had something to do with the disease in the lung, I gave him large doses of iodide of potassium and inunctions of mercurial ointment. His cough and expectoration soon almost disappeared, and after a careful examination the following year I failed to find any evidence of deposit in the lung. During the last three months he had no treatment but the specific medication mentioned. He had improved in weight, strength, and appetite, and considered himself almost well. Though it is well not to be too confident, yet there is strong circumstantial evidence to support the theory that this patient was suffering from tertiary syphilis, that there was a deposit or syphilitic nodule in the left lung, where at first it was thought there was tubercular infiltration, and that this, under the influence of anti syphilitic remedies, was removed, at least so far as to give no evidence of its existence.

In every case the diagnosis must depend in a great measure upon the history of the disease. There can be but little difference between the physical signs of this and that of ordinary tubercular disease. In both forms there is a deposit, there may be hæmorrhage, and cavities may result from the breaking down of the infiltrated masses. It may be safe to suspect syphilitic phthisis when the physical symptoms point to slowly progressing disease in the middle and lower parts of the lung, the apices being free, in cases where there is a decided history of syphilis. The suspicion may be confirmed if, when specific treatment is adopted, improvement takes place. It is well to remember in investigating thoracic disease, that syphilis of the lung is now a recognized condition, and may closely simulate phthisis pulmonalis in the physical symptoms. While so able a writer as Hutchinson, in his essay on "Constitutional Syphilis," enumerates almost every organ of the body except the lungs as liable to invasion from tertiary disease, on the other hand pulmonary syphilis is described by Fornier, Goodhart, Von Barensprung, and Rollet, in Europe, and reports were made in this country in 1877 by Tiffanny[1] and by the writer. More recently additional evidence has been secured.

During the past year a young lady was sent to me on account of great obstruction to deglutition. There seemed to be almost a complete stricture of the œsophagus. There was a history of dysphagia, and well defined pain beneath the sternum and above the cardiac orifice for eighteen months. For eight months the patient had subsisted on liquid food alone. An attempt to pass an œsophageal sound failed. There had been no attack previous. Organic stricture was thought probable, spasmodic stricture possible. The patient was of exceedingly nervous temperament, and much reduced in strength and weight. After some time devoted to general tonic treatment, the bougie No. 12, which at the first gave much pain, was again used. This time it passed through the supposed stricture easily. That afternoon the patient had less difficulty in deglutition, and has continued to improve. I have not used the bougie since the first successful attempt at passing it two months ago, and yet she is now eating without difficulty, still in some dread of choking. In this instance the diagnosis of spasmodic stricture is assured, rather than of organic disease. The main feature here is the quick relief afforded by a single passage of the instrument. How much local and how much mental effect was produced by the procedure I know not. I only know the very troublesome condition is removed, to the great relief both of the patient and myself.

A case parallel to this is recorded by Dr. Henna, where, in a most obstinate case, the sound was passed but once, and almost immediate relief resulted. For nearly five months, *i. e.*, to date of publication, there was not the slightest return of the difficulty.

In the following case—a unique one in some respects—there was an error in the diagnosis, and an even more surprising result from slight instrumental interference. I quote again from my case book. Isaac H., a carpenter, æt. 30, came to me with this history. His general health had always been good, and he had had no trouble with his voice until the winter of 1862. At that time he was in the army, and much exposed. One day, after it had been more than usually wet and cold, to use his own words, "he caught cold in the throat." Hoarseness followed, and in twenty four hours his voice was quite gone. His throat felt sore and stiff at the time and he had some difficulty in swallowing, both these symptoms soon passed away. Since then, eleven and one half years, he had never spoken aloud. Several physicians had examined him, and had decided that there was some important organic lesion—the exact diagnosis I know not—and that the aphonia was permanent. Patient was a strong, well developed man, without any symptoms of nervousness or debility, such as are often found in cases of so called "hysterical aphonia." Upon a laryngoscopic examination, I found a slight bilateral paralysis of the adductor muscles of the vocal cords, which was barely sufficient to produce aphonia, the cords moving when phonation was attempted almost to the median line, leaving only a narrow space between them. The mucous membrane was of natural color, and there was no thickening or signs of recent inflammation. The case seemed in every way a proper one for faradization. This was done by means of Stoehrer's induction apparatus and Mackenzie's electrode, and in this way an electric current was easily applied to the affected muscles. The first day the patient was able to make a distinct vocal sound, and after the second application the following day, phonation was completely restored. Since then, his voice has remained perfect. It is needless to say that the physician was as much surprised as the patient at the unlooked for result.

---

[1] Am. Jour. Med. Sciences, July, 1877.
Missouri State Med. Association, 1877.
[3] Hospital Gazette, 1879.

From the history of this case, I have no doubt that the aphonia was produced in the first instance by catarrhal congestion, which affected the nervous supply of the adductor muscles of the cords, and after the congestion had disappeared, the nerve force was not sufficiently evolved to produce complete approximation. It is interesting to note that although there had been no complete action of the parts for so long, there was no apparent atrophy of either the cords or muscles, and that such slight treatment was enough to relieve aphonia so persistent. Mackenzie, in commenting upon this case, says that probably for a long time the patient had the power of vocalization, but that for some reason that power was not evolved. I cannot think that so little treatment could so quickly affect an organic change of so long duration. This man is now living in Western Pennsylvania, and has had no trouble with his voice since its recovery, now more than ten years ago.

Let me give the outline of two cases in which the error in diagnosis was in the location of the cause of disease. The first is one of that now well recognized class—reflex asthma. Mrs. P., of Tennessee, æt. 51, of good family history, and in former good health, had severe and frequent paroxysms of asthma during two years. She was, when I saw her, much reduced, scarcely able to walk, and exhibited all the physical signs usual in such cases. At first all efforts were directed to reach the disease *in situ*, without effect. Noticing that there was some nasal obstruction, I easily discovered the nares filled by small polypi. These being removed, the dyspnœa gradually disappeared. Since then I have seen a number of cases of asthma from reflex causes, and many more have been reported by others, but I need hardly say that this first case carried its lesson to me.

The last case is one which greatly puzzled me at the time, and was finally solved by the patient himself. Mr. J. consulted me on account of chronic naso-pharyngeal catarrh. So great was the disturbance that it seriously interfered with his duties of managing editor of a daily paper. There was profuse discharge of muco-purulent matter, both by the nostril and pharynx, with thickening and some ulceration of the mucous membrane lining the cavities. After patient treatment for some time there was an improvement in some of the symptoms and in the appearance of the cavities, but the offensive discharge, though lessened, still continued, especially from the right nostril. Finally, the patient became discouraged and abandoned treatment. Some months after, he came to see me with the statement that he was well. He showed me a small hard substance which had been expelled from the right nostril, followed by a rapid change in the quality and quantity of the discharge, which in a short time ceased. The foreign body was an embryotic tooth which had evidently ulcerated through into the maxillary sinus and so escaped into the nostril. It will be remembered that the floor of the antrum is often very thin, and conical processes corresponding to the first and second molar teeth are found; in fact, sometimes the floor is perforated by the teeth. Salter[1] says the antrum may extend so as to be in relation to all of the teeth of the true maxilla from the canine to the *dens sapientiæ*.

This is one of the few cases in which I can place a mistake to the credit of myself and the advantage of my patient, for had the cause of the persistent trouble been known, I would at least have suggested an operation. It was better as it was. In reviewing these mistakes, I trust I have not in so doing added to the list. The most proficient among us often err. We are fortunate when we can learn from our errors.

MEDICAL PROGRESS

ANATOMY AND PHYSIOLOGY

The Effect of General Anæsthesia on Cocaine Mydriasis.—Mr. Simeon Snell, in a note on this subject, says: "I am not aware that any observations have as yet been recorded as to effects of the general anæsthetics on cocaine mydriasis. So much has, however, been written respecting this remarkable and most valuable drug, that it is hardly safe to state now that any observation is original. At all events, I desire to draw attention to the following.

"A short time since, cocaine was inserted into the eye of a case of strabismus, on which it was intended to operate, but for which it was afterwards deemed desirable to administer ether to overcome the nervousness of the patient. The phenomena about to be mentioned were then noticed. The cocaine had caused wide dilation of the pupil, but during the administration of the ether, and whilst under the anæsthetic, the mydriasis was observed to pass off and the pupil to become just as small as the other. The observation has been repeated in other instances. A few days since, in a case of nævus of the orbit in a baby, about to be treated with electrolysis, the pupil of one eye was purposely dilated with cocaine (five per cent. solution of hydrochlorate). Chloroform was then administered, and whilst the child was getting under its influence, the pupil became less large, and, when fully narcosed, it was as small as the pupil of the other eye. On the day this is written, the observation was repeated in a case for which ether was administered, and, after recovery from the effects of the anæsthetic (ether), the pupil was observed to have become dilated again

---

[1] Abscess of the Antrum. Holmes's System of Surgery.

It clearly follows, from these observations, that we have in cocaine a mydriatic that acts in a different manner from atropine and other agents of the same class It is well known that atropine mydriasis remains unaffected when ether or chloroform is administered, a result in accordance with the opinion that the drug acts by paralysing the sphincter iridis, and affecting the muscles, or rather the peripheral endings of the nerves which supply them The observations I have recorded would appear to support the theory advanced by Mr Walter H Jessop He maintains that cocaine acts as an irritant to the endings of the cervical sympathetic or mydriatic nerve of the eye At all events, it is seen that, when, on the administration of a general anæsthetic (ether or chloroform), the muscular system has become relaxed, and narcosis has occurred, the cocainised eye recovers itself These observations appear to be of interest, both apart from, and in connection with, Mr Jessop's interesting investigations I am inclined to think that chloroform more fully overcomes the mydriasis than ether —*British Medical Journal, July 25, 1885*

ACTION OF CHINOLINE TARTRATE —At the close of an article on this subject, DR CONRAD BEHRENS draws the following conclusions

1 Chinoline tartrate is a powerful agent, producing death by asphyxia

2 The drug increases the force and frequency of the respirations by stimulating the vagus roots in the lung

3 It paralysis respiration finally by a secondary depressant action upon the respiratory centre

4 It does not cause convulsions

5 It lessens and finally abolishes reflex action by a direct action upon the cord, and by a slight action upon the muscles and nerves

6 It diminishes or abolishes muscular contractility respectively when applied through the circulation or directly

7 It coagulates myosin and albumen

8 It causes insalivation by paralysis of the secretory fibres of the chorda tympani, increases the flow of bile, has no action upon the spleen

9 It lowers blood-pressure by paralyzing the vaso-motor centres and by a direct depressant action upon the heart-muscle

10 It diminishes the pulse-rate by direct action upon the heart

11 It lowers the temperature by increasing the loss of heat

12 It is a powerful antiseptic, and, finally

13 Its paths of elimination are not known —*Therapeutic Gazette*, July, 1885

MATERIA MEDICA AND THERAPEUTICS

THE EXTERNAL EMPLOYMENT OF CRYSOPHANIC ACID —Under the name of traumaticine, a solution of gutta-percha has been employed for some time as an excipient in certain drugs, as the solution painted on the skin by the aid of a brush leaves firm pellicles which will serve to preserve the skin from friction DR AUSPITZ has recently employed this solution for the external application of crysophanic acid, so as to cause it to adhere to the skin and protect it from rubbing, and to prevent this drug from staining bodies which come in contact with it This preparation has been employed with success in the treatment of psoriasis, and it is evident that it may serve for the application of a large number of drugs which are soluble or capable of suspension in chloroform, and which appear to the physician a valuable method of treatment Auspitz (*Nouveaux Remedes*, May 15, 1885) dissolves one part of crysophanic acid and one part of gutta-percha in eight parts of chloroform, and the preparation so prepared has been also used with success by Dr Fournier Dr Besnier, however, prefers to apply first a solution of crysophanic acid in chloroform, and then to cover this with a varnish of gutta percha in chloroform

His formula is one part of crysophanic acid dissolved in eight or nine of chloroform for the first solution, and one part of purified gutta-percha dissolved in nine of chloroform for the second —*Therap Gazette* July, 1885

ADONIS VERNALIS AND CONVALLARIA MAJALIS —These drugs have been clinically tested by DR GLUZIUSKI (*Przeglad Lekarski*, No 46–49, 1884) as to their claim of being substitutes for digitalis Both drugs were given in the form of an infusion, and to meet the usual indications of digitalis In cases of insufficient compensation, the regulatory effects of both drugs were very conspicuous, the heart beats became more distinct and quiet, the pulse more tense but less accelerated, the entire cardiac irregularity growing less and less manifest Besides, the ventricles grew smaller and the heart-sounds more distinct The quantity of urine voided rose from 300 to 2,000 and 3,000 c c The symptoms of dropsy receded or disappeared wholly The subjective symptoms likewise visibly improved, especially the dyspnœa and palpitation of the heart Compared with digitalis, the latter seems to act more promptly than adonis, and this again excels convallaria In some cases digitalis was clearly useless, while these substitutes acted satisfactorily It is both interesting and valuable to know that, provided a few doses of digitalis were given before the substitutes, these showed an intensity of action far superior to the power of digitalis Both remedies are free from cumulative effects, and are hence very eligible for a protracted use, or in patients that lack medical control —*Therap Gazette*, July, 1885

MEDICINE

PEDIATRIC APHORISMS —The following aphorisms of PROF LETAMENDI are quoted in *El Dictatum*, of May 10, 1884

1 Children are like the mob, they always complain with reason, although they cannot give the reason why they complain

2 Always look at the lips of a pale and sickly child, if they are of a deep red color, beware of pre-

scribing tonics internally. At the outset you will congratulate yourself, but in the long run you will repent of having employed them.

3. As a general rule, a sad child has an encephalic lesion, a furious child, an abdominal one, a soporific child has both, though indistinctly defined.

4. An attendance on children produces on the mind of an observant physician the conviction that the half, at least, of adult transgressors are so through morbid abdominal influences.

5. A sunny living room, a clear skin, and an ounce of castor oil in the cupboard, these are the three great points of infantile hygiene.

6. To dispute the clinical value of tracheotomy in croup is a waste of time to no good purpose. Croup, or no croup, if there be a positive obstruction to respiration in the larynx it is but according to reason to open a way for sub-laryngeal respiration. In the days of more knowledge and less nonsense tracheotomy will be ranked among minor surgical operations.

7. Dentition is the true multiple pregnancy in which the uterus and its fœtuses become petrified in proportion as they grow. It is not the direct or the eruptive pressure, but the lateral pressure of all together that is the most dangerous. It is from this that so many cerebral symptoms appear which can in no way be relieved by incisions of the gums. The only resource against the danger of this transverse pressure is to give the child more nourishment, in the hope that as the general condition is bettered the local condition will also improve.

8. If the incisors of the first dentition are serrated it is bad, but if those of the second formation are the same it is worse. It foretells a number of lesions arising from the deficiency of mineral salts in the tissues. There is only one exception, and it is an important one. When the serrated incisors are seen in the strong children in whom the fontanelles have closed early, it is a sign of robust constitution. Instead of a number of small and sharp dentitions there are a few large blunt ones.

9. To regard the eruption of the teeth as the sole factor in the general process known as the first dentition, is to perpetrate a set of medical synecdoche. Children get their first teeth because they are at the same time getting a second stomach and second intestines.

10. The body of a child possesses such a degree of "acoustic transparency" that in cases of necessity or convenience, auscultation may be practised with the hand, converting it into a telephone which will reveal as much to the physician as even his ear could do.

11. In practise it is well to distinguish with decision a case in which disease is due to lumbricoids from one in which lumbricoids are due to disease. For in the former case anthelmintics are of service, but in the latter they do harm.

12. Since, until a child is able to talk clearly, his relations with the physician are clearly objective, it is very necessary that he should study as carefully as do the veterinarians the exact correspondence between lesions and the expression of the patient.

13. If you wish to cure rapidly and well joint disease in infants, you must treat them as you would a conflagration—douches, douches, and more douches, until you have succeeded in extinguishing them.

14. The entire system of the moral relation between children and adults should be changed. To speak to them incorrectly merely because they cannot pronounce well, to excite their fears and arouse their weird imaginations simply because they are easily frightened and impressionable, to stimulate their vanity because they are naturally inclined to be vain, these and other similar actions are not only wrong but absurd.

15. There is, finally, a danger to women of contracting a vice as yet unregistered in the annals of concupiscence—mastomania, or the sensuality of nursing. When this physiological act degenerates into a vice, nursing becomes so frequent as to be almost continuous, and the result is ruin to both mother and child. Finally, the physician must here, as always, be at once wise, discreet, of good judgment, and firm.—*Birmingham Med. Review*, Aug., 1885.

A NEW METHOD OF GIVING A BATH IN TYPHOID FEVER.—In an article on this subject PROFESSOR H. C. WOOD says: As is well known, the great difficulty in the use of the bath in fevers is the trouble which is involved in moving the patient in and out of the bath tub. The following simple device will in great part remedy this trouble and also save the necessity of providing a portable bath tub. The canvas of an ordinary bed-cot is to be made three or four inches wider than it is ordinarily arranged, and a broad board nailed at each end so as to hold the cot permanently open and project above it several inches in the form of a head or foot board. This cot is then arranged alongside the bed of the patient so as to be on a level with the bed, and at the same time firm. Over it is spread an india-rubber cloth sufficiently large to cover it entirely and to fall above and below over the head and foot-board. The patient, wrapped in a sheet, is then slipped on to the cot, of course the canvas sags down, and when water is poured over the sheet the man lies half immersed in a pool. If the attendant is provided with two tubs, one containing water and one empty, and also with a large bathing-sponge, the water in this pool heated by the body can be removed by means of the sponge, and fresh cold water soused over the body enveloped in the sheet. In this way the water lying continually between the sheet and the body as well as saturating the sheet so envelops the person that the effect of a cold bath can be achieved, and I have seen very rapid reduction of obstinate high temperatures. If the bed upon which the patient lies be a very wide one, instead of a cot being used, the mattress can be so arranged on one side as to sag down sufficiently to form a hollow for the pool, and in this way the bath be given.

I notice that Stephan, of St. Petersburg, affirms that the application of ice-bags over the super-clavicular regions is sufficient to control the temperature in fever, owing to the fact that the cold is brought into close contact with much of the blood of the body by the large superficial veins of the neck. I have had no experience, however, of this method of reducing temperature, but it is worthy of a trial, especially as it seems to be safer to reduce temperature in low fever by external cold than by our at present known depressant antipyretic drugs.—*Therapeutic Gazette*, July, 1885.

TREATMENT OF AN ACUTE FORM OF DIARRHŒA.—DR. JOHN KENT SPENCER, in a note on this subject, says that an eliminative dose of castor-oil, or of Gregory's powder (pulvis rhei compositus) has been usually considered as an essential feature in the preliminary treatment of ordinary diarrhœa. But the management of this common malady, alvine catarrh, has never been raised to the scientific level of many diseases of rarer occurrence, and hence there is always a little uncertainty in our prognosis.

In the *Practitioner* for March, 1875, a formula was published by Dr. David Young of Florence, which I have used ever since with the greatest advantage. He combined about two minims of castor oil with three or four minims of solution of hydrochlorate of morphia (*British Pharmacopœia*), and rubbed them into an emulsion with gum acacia. To this were added spirits of chloroform, and a little syrup. These were the quantities for a single dose, which might be repeated every hour, or every two hours, according to the urgency of the case. If the diarrhœa were chronic, the quantity of castor oil was increased; if there were much pain, more morphia was prescribed.

I have found Dr. Young's mixture extremely valuable for nearly all forms of sudden and acute diarrhœa, such as we see often enough during August and September, and it is scarcely less useful in treating some chronic conditions of irritable bowel which have baffled the so called routine remedies with which we are all familiar. But when the castor oil and morphia fail, or do little good after four or five doses, it may even aggravate the malady to continue them.

Warm milk and lime-water is the best food; a mustard poultice may be put on over the stomach, and there should be absolute rest in bed.—*Brit. Med. Jour.*, Aug. 8, 1885.

SURGERY

COCAINE IN VENEREAL AND SYPHILITIC DISORDERS.—The experience of BONO with cocaine in affections of the genital system (as published by the *Gazz. delle Cliniche*, 1, 1885) can be conveniently epitomized as follows:

1. An injection of a few drops of a two per cent. solution of cocaine removes promptly the pains felt in acute gonorrhœa during micturition and erection. The injection has to remain in the urethra for at least five minutes, and to be repeated four to five times daily.

2. This cocaine injection is unrivalled in rendering caustic injections or the introduction of the catheter painless.

3. The burning pains of blennorrhœa in women yield invariably to small cotton tampons saturated with a two per cent. solution of cocaine, or to the application of a five per cent. solution of cocaine or to the application of a five per cent. cocaine ointment.

4. Cocaine facilitates the examination of urethra and bladder with the bougie and the endoscope.

5. It allows of a painless cauterization in bulano prostatitis.

6. Pointed condylomatæ can be painlessly cauterized, excised, or scraped out with its aid.

7. In cauterization and excision of primary syphilitic affections, cocaine evinced very desirable analgesic virtues of a sufficiently long duration.

8. Taken internally during an antisyphilitic treatment, cocaine did not present any appreciable effects.

9. Its local effects are highly beneficent in syphilitic tonsillitis and in stomatitis mercurialis, and difficulties of deglutition.

Bono refers also to its analgesic properties in acute painful eczema, pruritus vulvæ, sore nipples, and burns.

As Bono's observations were confirmed by Blumenfeld, Frankel, Pick, and Neisser, they are entitled to attention and confidence.—*Therapeutic Gazette*, June, 1885.

COCAINE IN URETHRAL CARUNCLE.—DR. PERCY BOULTON finds, in cases of "urethral caruncle" (those exquisitively sensitive growths of the female urethra), that the effect of cocaine is marvellous. Few small troubles are more sensitive to touch, and formerly it was necessary to give chloroform for their removal. He applies a four per cent. solution of cocaine, and in five minutes snips them off with sharp scissors, and applies the cautery to the stump to stop bleeding, without chloroform, and without pain to the patient. The same solution, if applied in the nostrils with a camel's hair brush, undoubtedly produces great relief in cases of hay fever.—*British Medical Journal*, July 25, 1885.

OBSTETRICS AND GYNÆCOLOGY

DIAPHORETIC TREATMENT OF PUERPERAL ECLAMPSIA BY HOT BATHS.—DR. BREUS reports (*Archiv fur Gynakolog.*, xxi. 1.) eleven cases of puerperal eclampsia treated by the hot bath with ten recoveries. He had previously treated six cases by this method, losing in this series, likewise, one case. He first places the patient in a bath of 100° F., and gradually increases the temperature from two to four degrees. He then envelops the patient in blankets to excite an abundant diaphoresis. Of these eleven women, four had had convulsions at the commencement of labor, two during gestation, one at the moment of delivery, and four after delivery. The author affirms, from his experience with these seventeen cases, that neither abortions nor hemorrhages are to be feared from the employment of the bath, and that when the presence of albumen in the urine indicates a threatened complication, the bath constitutes an excellent prophylactic means. One of these cases reported was that of a primipara, aged twenty six, who was attacked with œdema and albuminuria. In the eighth month baths began to be given. After taking forty-five, she was successfully delivered of a large and healthy child.—*Medical Record*, Aug. 15, 1885.

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer s full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE
PER ANNUM IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 6, RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, SEPTEMBER 26, 1885

THE AMERICAN MEDICAL ASSOCIATION AND THE CONGRESS OF 1887

Perhaps the action of no organized body of men was ever before so extensively and persistently misrepresented, as that of the American Medical Association at its meeting in New Orleans, regarding the preliminary organization of the International Medical Congress of 1887 Instead of wasting time and space in enumerating and refuting these misrepresentations in detail, we will oppose to them all, the following simple statement of historical facts

1st At the preceding annual meeting in Washington, May, 1884, on the recommendation of the President Professor Austin Flint, of New York, endorsed by the report of a Special Committee of which Dr J S Billings of Washington, I Minis Hays, of Philadelphia, and Lewis A Sayre, of New York, were members, the Association was induced to adopt resolutions presented by said Special Committee, authorizing the President of the Association to appoint a Committee of Seven, of which he should be a member which Committee should attend the International Medical Congress to be held a few months later in Copenhagen, and in behalf of the *profession of the United States*, extend an invitation for the next triennial meeting to be held in this country If the invitation was accepted, the same series of resolutions conferred upon the same Committee authority to add to its number and exercise all the powers of a Committee of Arrangements for effecting the preliminary organization of the proposed Congress, with an appropriation from the Treasury of the Association to defray necessary preliminary expenses The Committee thus authorized was appointed by the President and consisted of Drs J S Billings, Austin Flint, (ex officio) I Minis Hays, J M Browne, L A Sayre, Christopher Johnson, S J Engelman, to which was added Dr H F Campbell as President elect of the Association The fact that this Committee of Invitation had been appointed by the American Medical Association, which by such appointment had made itself responsible for the acts of such Committee in carrying out the instructions contained in the resolutions was published in all the leading Medical Journals and could not have been otherwise than well known in Europe In due time the invitation was extended by the Committee and formally accepted in open session of the Congress in Copenhagen The Committee returned home invited sixteen other prominent members of the profession to unite with them, constituting a General Committee of twenty five This General Committee held one meeting in Washington, organized by the election of a President, Vice-Presidents, Secretary-General, and Treasurer Rules were also adopted for the organization of the Congress, one of which made the Officers of the Committee also the General Officers of the preliminary organization of the Congress At the same meeting some of the Officers of Sections were appointed, and further details of the work were committed to an Executive Committee of five, subject to the approval of the General Committee The Executive Committee by conferences of its own and by correspondence with other members, so far completed the work of organization as to publish the results both in this country and Europe only a few weeks before the annual meeting of the Association in New Orleans, the last week in April, 1885

2d At the meeting of the Association in New Orleans, Dr J S Billings, as the Secretary-General of the proposed Congress, made a brief report of the doings of the Committee and presented a printed copy of the Rules and Official Organization adopted The report was received and made the special order for consideration the following day At the hour appointed, several members freely criticised the work of the Committee, pointing out the fact that it had appropriated all the chief offices of the Congress to its own members, that it had centered an unduly large proportion of the Officers of Sections in two or three cities, instead of making them representative of the profession of the United States in whose name the invitation had been given, and had given undue prominence to a particular portion of the profession in New York, which was well known to have arrayed itself in opposition to the State and National organizations of the profession generally The result of the discussion was the adoption of two resolutions by the Association, both of which have been repeatedly published in the columns of this JOURNAL, the effect of which was clearly to make the Committee on Organization more national in character, or, in other words, more directly representative of the profession of the United States by adding to the Original Committee of eight one from the profession of each State and Territory, in the place of the additions previously made by the Original Committee and to give the Committee thus enlarged authority to review the work previously done by the Committee on Organization, and make such changes as the enlarged Committee might think advisable. This was the sum total of the action of the American Medical Association concerning the organization of the Congress. The resolutions adopted contain not one word about Codes of Ethics, they displace no one of the Original Committee, they prescribe no rule either for the membership, government or officering of the Congress but simply enlarge the Original Committee in such a way as to make it more representative of the whole profession, and continue in the enlarged Committee the same powers substantially, as were conferred upon the Original Committee at the meeting in Washington.

3d. The Committee as enlarged by the action of the Association in New Orleans held its first meeting in Chicago June 24 and 25, 1885, and organized simply as a Committee of Arrangements, its officers having no corresponding positions in the proposed Congress as had been the case with the first organization of the Committee. After as full an examination of the work previously done as the time would permit, the Committee re-adopted nearly all the Rules previously devised except those relating to the American Membership and the Executive Committee of the Congress. The first of these it was proposed to amend in such a way as to unnecessarily restrict the membership, and all provision for the latter was overlooked. In consequence of these defects, the proper work of the Committee was continued, and a second general meeting held in New York, Sept. 3 and 4, 1885, during which the revision of the Rules was completed, the vacancies in the general offices of the preliminary organization of the Congress filled, and an Executive Committee provided for, consisting of the President of the Congress, the Secretary-General, the Treasurer, the Chairman of the Finance Committee, and the Presidents of the several Sections. The Committee of Arrangements thus deliberately completed the work assigned to it by the Association, and delegated to the Executive Committee of the Congress full power to fill all future vacancies, complete all unfinished details of organization, increase to a limited extent the number of its own members, and manage all the affairs of the Congress in accordance with the Rules adopted, without other restraint or interference from any source. The Rules in detail, together with the General Officers of the Congress, the Presidents of Sections, and the Executive Committee, were published in this JOURNAL for Sept. 12, 1885.

We have given the foregoing plain narrative of facts regarding the action of the American Medical Association and its Committee of Arrangements for providing a preliminary organization for the International Medical Congress of 1887, which would fairly represent the medical profession of the United States, and under rules as liberal, in relation to membership and in all other respects as those adopted by previous Congresses, to show, first, how utterly groundless have been the charges and denunciations so persistently hurled at the Association and its Committee; and, second, that notwithstanding all the persistent opposition of a few prominent members of the profession having control of three or four leading medical journals, the Association, through its enlarged and representative Committee, has fulfilled the obligations it incurred in inviting the Congress to hold its next meeting in the City of Washington in 1887, by effecting a preliminary organization on a national and liberal basis, with ample power to manage all the business and scientific interests of the Congress as independently as the interests of any previous Congress has been managed in Europe. The responsibility is now with the new Executive Committee and the true friends of the Congress everywhere. If the Committee will take up its work promptly and push it harmoniously, it will receive ample support both at home and abroad, and the Congress will be as successful as the most enthusiastic could desire.

THE TREATMENT OF ACUTE INTESTINAL OBSTRUCTION.

Three valuable papers were read on this subject at the recent annual meeting of the British Medical Association, all of which are published in the *British Medical Journal*, of August 29. MR. FREDERICK TREVES, who has added so much to the literature of intestinal obstruction, introduced a discussion on the subject with a paper entitled "The Operative Treatment of Intestinal Obstruction," and was followed by MR. J. GREIG SMITH, and MR. A. W. MAYO ROBSON. Two other papers, of considerable interest in connection with this subject were also read at the meeting, by MR. R. N. PUGH, who reported a successful case of operation for intestinal obstruction, in a child six years of age, and MR. E. STANMORE BISHOP, who read a paper on "Enterorrhaphy, with a description of a New Form of Suture."

Mr. Treves opens his paper with the regret that "Intestinal Obstruction" has a place in surgical nomenclature. It would be as reasonable, he thinks, "to consider retention of urine as a distinct and isolated malady, without recognizing that it may depend upon a stricture of the urethra in one case, and an impacted calculus in another." In this paper he discusses only the acute form of intestinal obstruction, and for convenience gives the collection of symptoms making up the condition known as acute intestinal obstruction as being due to (1) hernia-like strangulation of the bowel, (2) volvulus of the sigmoid flexure, and (3) acute invagination: which he discusses in turn.

With regard to the first form, "in every instance, a knuckle or loop of bowel is held and kept in bondage until it is strangulated. The mechanism of the obstruction is in all main points identical with that of strangulated external hernia, the general pathology is the same, and, with some minor modifications, the symptoms are the same." Mr. Treves would put the patient to bed, and keep him at absolute rest, relief of the abdominal pain being attempted by warm applications to the belly. Opium is given to ensure rest to the bowel, and food is absolutely interdicted. The thirst may be relieved by sucking ice, or by hot tea. The colon should be emptied by enemata. In the matter of surgical treatment he recommends that laparotomy be performed within the first twenty-four hours, if the diagnosis be clear. And he again calls attention to the fact, so often insisted upon, that laparotomy is not in itself a dangerous operation, but that its present rather high mortality is due to its being regarded as a last resort rather than a first, or early means of relief." It seems to be tampering with life to waste time over the administration of metallic mercury, and enemata of tobacco and the like. To thrust an aspirator into the abdomen, as some advise, is a stab in the dark, an empirical proceeding that leaves everything to chance. As regards the operation itself, it need only be said that Mr. Treves is a firm believer in Listerism, that he advocates a clean cut in the linea alba, below the umbilicus, and does not use "that uncouth weapon, the steel director."

In the treatment of acute volvulus of the sigmoid flexure, Mr. Treves says: "I take it that, in the first instance, the treatment by rest and starvation would be insisted on as a matter of routine. Opium would be administered, and it may be as well to empty the rectum by an enema. With regard to more active interference, I believe that all attempts at relief by enemata or rectal tubes are likely to prove not only quite useless, but actually harmful. If the precise relation of the parts be borne in mind, it will be perceived that a forcible injection into the rectum will tend to tighten rather than to relax the twist." Of operation for this form of obstruction he says that simple laparotomy is an unpromising precedure, but in any future case he will perform laparotomy in the middle line, puncture the gut, and attempt its reduction; if this fail, or the result appear unsatisfactory, he will evacuate the involved gut through an opening in the summit of the flexure, unfold the volvulus, and establish an artificial anus, using the opening just mentioned for that purpose. "By this method, the volvulus could be relieved in a very short space of time, and without much handling; and the distended colon above the twist could empty itself through the artificial anus. Inasmuch as this artificial opening would be at the summit of the sigmoid flexure, a return of the volvulus would be impossible." But however the operation be performed, it should be done quickly, on account of the rapidity with which peritonitis sets in, and the great risk of the involved loop becoming gangrenous.

If, after twelve hours of treatment of acute intussusception with opium or belladona and starvation and rest, "it will be expedient to attempt reduction by means of insufflation or forcible enemata." He thinks that in children under ten years of age the injection should be cautiously administered while the child is under the influence of an anæsthetic, but that in adults the best guide to force is the patient's own sensation. The injection—whether of air or water—should be retained for at least twenty minutes, gentle kneading of the intussusception being practised while the injection is retained. On no account should this treatment be adopted before the bowel has been placed at rest by means of opium or belladonna. These measures should be resorted to within the first twenty-four hours, if possible, in order that laparotomy may be performed early. After the operation, should the invagination be irreducible resection of the whole involved portion should be performed, and a temporary artificial anus be established. Mr. Treves does not think enterotomy a suitable operation in these cases." It will relieve the obstructive symptoms, it is true, but it will leave the invagination untouched, and leave it possibly to pass on into a state of gangrene, or a condition that may lead to diffuse peritonitis."

Mr. J. Greig Smith, in his paper, dwells chiefly on edly published in the columns of this JOURNAL, the effect of which was clearly to make the Committee on Organization more national in character, or, in other words, more directly representative of the profession of the United States, by adding to the Original Committee of eight one from the profession of each State and Territory, in the place of the additions previously made by the Original Committee, and to give the Committee thus enlarged authority to review the work previously done by the Committee on Organization, and make such changes as the enlarged Committee might think advisable This was the sum total of the action of the American Medical Association concerning the organization of the Congress The resolutions adopted contain not one word about Codes of Ethics, they displace no one of the Original Committee, they prescribe no rule either for the membership, government, or officering of the Congress, but simply enlarge the Original Committee in such a way as to make it more representative of the whole profession, and continue in the enlarged Committee, the same powers, substantially, as were conferred upon the Original Committee at the meeting in Washington

3d The Committee as enlarged by the action of the Association in New Orleans held its first meeting in Chicago, June 24 and 25, 1885, and organized simply as a Committee of Arrangements, its officers having no corresponding positions in the proposed Congress, as had been the case with the first organization of the Committee After as full an examination of the work previously done as the time would permit, the Committee re-adopted nearly all the Rules previously devised except those relating to the American Membership and the Executive Committee of the Congress The first of these it was proposed to amend in such a way as to unnecessarily restrict the membership and all provision for the latter was overlooked In consequence of these defects, the proper work of the Committee was continued, and a second general meeting held in New York, Sept 3 and 4, 1885, during which the revision of the Rules was completed, the vacancies in the general offices of the preliminary organization of the Congress filled, and an Executive Committee provided for, consisting of the President of the Congress, the Secretary-General, the Treasurer, the Chairman of the Finance Committee, and the Presidents of the several Sections The Committee of Arrangements thus deliberately completed the work assigned to it by the Association, and delegated to the Executive Committee of the Congress full power to fill all future vacancies, complete all unfinished details of organization, increase to a limited extent the number of its own members, and manage all the affairs of the Congress in accordance with the Rules adopted, without other restraint or interference from any source The Rules in detail, together with the General Officers of the Congress, the Presidents of Sections, and the Executive Committee, were published in this JOURNAL for Sept 12, 1885

We have given the foregoing plain narrative of facts regarding the action of the American Medical Association and its Committee of Arrangements for providing a preliminary organization for the International Medical Congress of 1887, which would fairly represent the medical profession of the United States, and under rules as liberal, in relation to membership and in all other respects as those adopted by previous Congresses, to show, first, how utterly groundless have been the charges and denunciations so persistently hurled at the Association and its Committee, and, second, that notwithstanding all the persistent opposition of a few prominent members of the profession having control of three or four leading medical journals, the Association, through its enlarged and representative Committee, has fulfilled the obligations it incurred in inviting the Congress to hold its next meeting in the City of Washington in 1887, by effecting a preliminary organization on a national and liberal basis, with ample power to manage all the business and scientific interests of the Congress as independently as the interests of any previous Congress has been managed in Europe The responsibility is now with the new Executive Committee and the true friends of the Congress everywhere If the Committee will take up its work promptly and push it harmoniously, it will receive ample support both at home and abroad, and the Congress will be as successful as the most enthusiastic could desire

THE TREATMENT OF ACUTE INTESTINAL OBSTRUCTION

Three valuable papers were read on this subject at the recent annual meeting of the British Medical Association, all of which are published in the *British Medical Journal,* of August 29 MR FREDERICK TREVES, who has added so much to the literature of intestinal obstruction, introduced a discussion on the subject with a paper entitled "The Operative Treatment of Intestinal Obstruction," and was followed by MR J GREIG SMITH, and MR A W MAYO ROBSON Two other papers, of considerable interest in connection with this subject were also read at the meeting, by MR R N PUGHE, who reported a successful case of operation for intestinal obstruction, in a child six years of age, and Mr E. Stanmore Bishop, who read a paper on "Enterorrhaphy, with a description of a New Form of Suture."

Mr Treves opens his paper with the regret that "Intestinal Obstruction" has a place in surgical nomenclature. It would be as reasonable, he thinks, "to consider retention of urine as a distinct and isolated malady, without recognizing that it may depend upon a stricture of the urethra in one case, and an impacted calculus in another." In this paper he discusses only the acute form of intestinal obstruction, and for convenience gives the collection of symptoms making up the condition known as acute intestinal obstruction as being due to (1) hernia-like strangulation of the bowel, (2) volvulus of the sigmoid flexure, and (3) acute invagination, which he discusses in turn.

With regard to the first form, "in every instance, a knuckle or loop of bowel is held and kept in bondage until it is strangulated. The mechanism of the obstruction is in all main points identical with that of strangulated external hernia, the general pathology is the same, and, with some minor modifications, the symptoms are the same." Mr Treves would put the patient to bed, and keep him at absolute rest, relief of the abdominal pain being attempted by warm applications to the belly. Opium is given to ensure rest to the bowel, and food is absolutely interdicted. The thirst may be relieved by sucking ice, or by hot tea. The colon should be emptied by enemata. In the matter of surgical treatment he recommends that laparotomy be performed within the first twenty-four hours, if the diagnosis be clear. And he again calls attention to the fact, so often insisted upon, that laparotomy is not in itself a dangerous operation, but that its present rather high mortality is due to its being regarded as a last resort rather than a first, or early means of relief." It seems to be tampering with life to waste time over the administration of metallic mercury, and enemata of tobacco and the like. To thrust an aspirator into the abdomen, as some advise, is a stab in the dark, an empirical proceeding that leaves everything to chance. As regards the operation itself, it need only be said that Mr Treves is a firm believer in Listerism, that he advocates a clean cut in the linea alba, below the umbilicus, and does not use "that uncouth weapon, the steel director."

In the treatment of acute volvulus of the sigmoid flexure, Mr Treves says: "I take it that, in the first instance, the treatment by rest and starvation would be insisted on as a matter of routine. Opium would be administered, and it may be as well to empty the rectum by an enema. With regard to more active interference, I believe that all attempts at relief by enemata or rectal tubes are likely to prove not only quite useless, but actually harmful. If the precise relation of the parts be borne in mind, it will be perceived that a forcible injection into the rectum will tend to tighten rather than to relax the twist." Of operation for this form of obstruction he says that simple laparotomy is an unpromising precedure, but in any future case he will perform laparotomy in the middle line, puncture the gut, and attempt its reduction; if this fail, or the result appear unsatisfactory, he will evacuate the involved gut through an opening in the summit of the flexure, unfold the volvulus, and establish an artificial anus, using the opening just mentioned for that purpose. "By this method the volvulus could be relieved in a very short space of time, and without much handling, and the distended colon above the twist could empty itself through the artificial anus. Inasmuch as this artificial opening would be at the summit of the sigmoid flexure, a return of the volvulus would be impossible." But however the operation be performed, it should be done quickly, on account of the rapidity with which peritonitis sets in, and the great risk of the involved loop becoming gangrenous.

If, after twelve hours of treatment of acute intussusception with opium or belladona and starvation and rest, "it will be expedient to attempt reduction by means of insufflation or forcible enemata." He thinks that in children under ten years of age the injection should be cautiously administered while the child is under the influence of an anæsthetic, but that in adults the best guide to force is the patient's own sensation. The injection—whether of air or water—should be retained for at least twenty minutes, gentle kneading of the intussusception being practised while the injection is retained. On no account should this treatment be adopted before the bowel has been placed at rest by means of opium or belladonna. These measures should be resorted to within the first twenty-four hours, if possible, in order that laparotomy may be performed early. After the operation, should the invagination be irreducible resection of the whole involved portion should be performed, and a temporary artificial anus be established. Mr Treves does not think enterotomy a suitable operation in these cases." It will relieve the obstructive symptoms it is true, but it will leave the invagination untouched, and leave it possibly to pass on into a state of gangrene, or a condition that may lead to diffuse peritonitis."

Mr J. Greig Smith, in his paper, dwells chiefly on two points in the operative procedure in which he is at variance with Mr Treves, and which he states as follows (1) The best guide to the seat of operation is not manual exploration, but visual examination, assisted, if necessary, by extrusion of bowel (2) No case of operation for intestinal obstruction is properly concluded until distended bowels are relieved of their contents Mr Smith has no scruples against examining the intestines visually, and declaims against attempts to diagnosticate the condition of the bowel by examination with the hand alone He would "substitute the finger for the hand, and supplement both by the sight, I would ignore the cæcum, I would permit the bowel to extrude if it were much distended, I would even encourage it to do so, if I had not at once discovered the seat of obstruction, and if its extrusion were any help to me in this discovery, and I would go through all this before I inserted my hand to grope for the cause" He regards it as only less than a surgical calamity to perform median laparotomy for obstruction in the colon, since in the majority of cases it must, he says, be supplemented by a transverse or lumbar incision

In regard to the second point in which he differs from Mr Treves, he is quite certain that the presence of an excess of intestinal contents is in itself a cause of obstruction—an opinion that is supported by the physical characteristics of the intestines For the removal of these contents he is inclined to think that the method recently brought prominently forward by Kussmaul is likely to prove of great value It is well known that vomiting relieves these cases, and Kussmaul, by repeated applications of the stomach-pump, empties the intestines of their fluid and gaseous contents, relieving the patient, and frequently effecting a cure Directly contrary to the opinion of Mr Treves, he places great weight on enterotomy, or enterostomy, believing that it is applicable in almost every form of intestinal obstruction If neither Kussmaul's operation nor enterostomy satisfactorily relieve the distension, he would proceed to incision and immediate suturing, if this does not suffice he would make an artificial anus

Of Mr Robson's paper we can only give his general conclusions, which are based on his own experience, on *post mortem* records, and on recorded cases

1 In chronic cases—that is, where obstruction is the prominent symptom—medical treatment, such as injection, belladonna, massage, galvanism, etc, will often relieve or cure, or colotomy or laparotomy, or some other operation will be so plainly indicated as to leave no doubt as to what should be done

2 In acute symptoms supervening on chronic, medical treatment—for example, starvation rest and opium—may still often bring about a cure but laparotomy, as a means of diagnosis, and possibly of treatment, may be demanded

3 In initially acute cases, delay is often as dangerous as it would be to wait for an external hernia to reduce itself by its own efforts

"I believe that laparotomy (which in itself is not a dangerous operation) should be performed early—(*a*) as a means of making a diagnosis, (*b*) as a means of removing the cause of strangulation if such be discovered, (*c*) as a means of giving relief, if no cause can be found, by opening the bowel above the point of obstruction and carefully suturing it to the surface"

DR FELSENREICH'S MODIFICATION OF ALEXANDER SIMPSON'S AXIS TRACTION FORCEPS

Why so much obloquy should attend the obstetrical forceps throughout its intricate history, it is difficult to say In 1723, Johann Palfyn, the surgeon of Ghent, presented to the Academy of Paris a crude obstetrical forceps, termed *manus ferreæ Palfynianæ* About the same time, De la Motte heard rumors of the existence of a more perfect instrument He rejected the possibility of the obstetrical forceps, but sagely added, that if such a thing could be true—seeing that it was false—and the inventor should die without publishing his invention, he deserved that a vulture should prey upon his entrails throughout eternity For seventy-five years, such an instrument had existed, and was the family secret of the Chamberlens From its invention by Peter Chamberlen (born 1601, died 1683), every modification of the forceps has been the subject of bitter contention In very recent times, we have been compelled to listen to Tarnier's heated polemics

Dr L E Neale, of Baltimore, publishes an article entitled "An Obstetric Forceps," in the September number of the *American Journal of Obstetrics*, which deserves particular attention After referring to the superiority of Simpson's forceps for easy cases, and the importance of Tarnier's principle of axis-traction, Dr Neale says "For these reasons principally, I have designed an instrument representing the Simpson forceps practically unaltered, capable of being combined at option with the Tarnier attachment" Dr Neale's instrument, as presented to the Medico-Chirurgical Faculty of Maryland, at its meeting in Baltimore, in 1885, consists of the following parts "I A practically unaltered Simpson's forceps II The button hole perforations, one behind each fenestra, into which traction rods are inserted and maintained by the buttons on the ends of the rods III A removable compression thumb screw which sinks into a groove made in the extremities of the handles of the Simpson forceps IV The hard rubber handle for the traction rods, like Tarnier's, in which handle is concealed a sliding bar, to be used at option, so as to render the swivel joint immovable "

The advantages of such an instrument are obvious With the single exception of the compression thumb screw at the extremities of the handles, it is an approximately perfect mechanical contrivance But the instrument, with the exception of the thumb screw, has been in active use in Vienna, since 1881–'82 Professor Alexander Simpson modified Tarnier's axis-traction forceps by the substitution of Sir James Y Simpson's forceps for Levret's This modification was published about the year 1880, and was preferred in Vienna to Tarnier's most recent model Dr Felsenreich, at that time first assistant to Professor Carl Braun, modified the Alexander Simpson instrument by the addition of the button hole joint Dr Felsenreich's instrument is thus identical with the forceps described by Dr Neale, with the exception of the thumb screw The compression screw in Dr Felsenreich's instrument is located on the middle third of the superior surface of the handles, as in the Alexander Simpson instrument With characteristic modesty, Dr Felsenreich has refrained from publishing a description of his modification, until it could be thoroughly tested The instrument, however, is used in the clinic, exhibited in the courses on operative obstetrics, and is for sale by Mr J Leiter, in Vienna Dr Neale saw this instrument employed in Vienna, and his allusion to the fact is disingenuous He says "The idea of its construction is not *entirely* original with me, as the button hole joint for the traction rods was first shown to me by Dr Felsenreich, first assistant to Prof Carl Braun, of the Vienna Clinic, in 1882 " Dr Neale is entitled to the honor of substituting the compression thumb screw at the ends of the handles for the more useful contrivance of the Felsenreich and Alexander Simpson instruments So far, we have been dealing exclusively with facts

It is not our purpose to allude to matters of opinion Dr Neale is favorably known as a zealous student of obstetrics He has placed the American and English profession under lasting obligation for his excellent translation of Pinard's brochure, on "Abdominal Palpation as Applied to Obstetrics " It is quite possible that the error in the paper, to which we have ventured to call attention, may be explained by the unconscious persistence of mental impressions

SOME DIFFERENCE —In commenting on the action of the Committee of Arrangements at its recent meeting in New York, The *Medical Record* says "The Committee have utterly eliminated and blotted out Drs Cole and Shoemaker, trusting, we presume, to gain back Philadelphia by thus making scapegoats of these gentleman " But the *Medical News* of the same date parades Drs Cole and Shoemaker with the whole Committee of which they are officers, in its columns as constituting the "General Committee" of the Congress, while it entirely omits the true General Executive Committee of that organization As usual both are wrong, and both endeavoring to perpetuate dissentions and errors "Whatsoever a man soweth that shall he also reap "

SOCIETY PROCEEDINGS

MISSISSIPPI VALLEY MEDICAL SOCIETY
(Formerly Tri-State)

Eleventh Annual Meeting, held in Evansville Ind, Sept 8th 9th, and 10th, 1885

TUESDAY, SEPT 8 —MORNING SESSION

THE PRESIDENT, DR F W BEARD, OF VINCENNES, IND, IN THE CHAIR

DR A M OWEN, of Evansville, Chairman of the Committee on Arrangements, made his report He said that the meeting had been very thoroughly advertised in the journals, and that 5,000 circulars had been sent out He explained the arrangements he had made with the railroads and hotels Report accepted

The Chair appointed Drs Chas Knapp, of Evansville, Ind, Helm of Henderson, Ky, and Edward Borck, of St Louis, as Committee on Credentials

The reading of the minutes of the previous meeting was dispensed with

The Committee on Publication reported that all papers which had come into their hands had been published as required in the organ of the Society A few papers had been published in Chicago and elsewhere The Committee thought it desirable that the papers be published promptly One paper was not published for four months after it was read

DR G W BURTON moved that a Committee on Publication be appointed by the Chair Adopted The Chair appointed Drs G W Burton, of Mitchell, Ind, A M Owen, of Evansville, Ind, and H J B Wright, of Olney, Ill

DR J E SUTCLIFFE, of Indianapolis, read a paper entitled

A CASE OF PERINEAL SECTION WITHOUT A GUIDE FOR STRICTURE OF THE URETHRA

Called to see John D, æt 56, Irish Found patient suffering from retention of urine Bladder was largely distended, reaching up toward the umbilicus

Dr Arch Dixon, of Henderson, Ky , related

A CASE OF GONORRHŒAL STRICTURE WHERE THE URETHRA WAS GROWN TOGETHER

Dr Joseph Eastman, of Indianapolis, said The paper urges the importance of a thorough knowledge of the perineum This is right, notwithstanding that Dr Bauer speaks lightly of this, and thinks that a distended urethra cannot be missed When we cut into the bladder of a female we relieve her of a suffering from cystitis worse than death Why should we not do so in the male? He thought there was here a field for study and improvement, and urged on those present to consider the matter carefully

Dr A C Bernays, of St Louis, said he thought the question whether or not impermeable stricture existed, was settled We have had two cases, one cicatricial, one gonorrhœal He considered the three operations, thought all were useful, but favored Cox's, or the English operation

Dr Sutcliffe, in closing the discussion, thought that tapping in front of the prostate gland, known as Gunther's operation, was excellent

Afternoon Session

Dr Wm Porter, of St Louis, read a letter addressed to the Society from Dr Morrell Mackenzie, of London, England, regretting his inability to be present, and wishing the Society a pleasant and profitable meeting

Dr Jas H Letcher, of Henderson, Ky , moved that the thanks of the Society be conveyed to Dr Mackenzie for his kind remembrance Passed

[Dr Mackenzie attended the meeting of the Society a few years ago, expressed himself as much pleased with it, and always remembers it]

Dr George Brinton Walker, of Evansville, Ind , read a paper on

PUERPERAL FEVER AND PUERPERAL SEPTICÆMIA

The word comes from *puer*, a child, and *parere*, to bring forth Although modern writers prefer another name in describing this condition, it is probable that the simple title, puerperal fever, will not soon be entirely abandoned The disease was recognized in the earliest antiquities Rachel, the beloved wife of the patriarch Jacob, as well as the wife of Phineas, is supposed to have died of this disease It was mentioned by Hippocrates, the discerning father of medicine First called puerperal fever by Dr Strother, in 1716 It is divided into sporadic and epidemic, or inflammatory and congestive Also divided into synochal, sthenic, or benign or typhoid, as thenic, putrid, or malignant In fatal cases patient dies three to ten days after confinement From eminent authorities we may consider puerperal fever to be an inflammatory disease, some sthenic, some asthenic It generally involves the peritoneum, occasionally the appendages of the uterus and uterine veins and lymphatics The mode of reception of the poison is divided into auto and hetero infection Here the doctor quoted largely from Thomas's recent paper before the New York Academy of Medicine, and the discussion which followed He cited the conflicting testimony of both modern and ancient authors From an impartial consideration of all authors and his own experience the doctor was lead to the following statements

1 That the fever which attacks woman in the puerperal state may consist of numerous and distinct pathological conditions It may be a sthenic disease caused by injury or shock from the passage of the child through the genital tract

2 It may be asthenic, or malignant, from some occult cause associated with the traumaticism of labor

3 It may be the result of toxemia from septic matters entering into and circulating through the vascular system

As to the agency of bacteria, he thought the subject may be regarded as undecided, and inviting further investigation Dr Byford thinks several diseases are included under the denomination of puerperal fever, especially as distinguished by the profession at large There are metritis and metro peritonitis without septic infection In the septicæmic variety treatment consists in relieving, 1st Inflammatory condition, 2d High temperature, 3d Malignant results of septicæmia, 4th Insufficient strength, tone up and stimulate the patient

In the purely inflammatory form the antiphlogistic treatment is indispensable In the malignant variety, opiates, stimulants, stupes externally, and calomel, quinine in 10, 20, 30, 60 grain doses, should be given The doctor, the nurse, and others about the patient should be clean, especially the patient herself He did not think ante-partal antiseptic injections advisable They are not only unnecessary, but really hurtful, by subjecting patient to a painful system of annoyance, which of itself may cause disease It is worse than meddlesome midwifery, because it anticipates labor and does not permit the woman to enjoy necessary rest when labor is completed

Dr S E Munford, of Princeton, Ind , recalled one case which resulted in death He had, the day previously, attended a case of erysipelas He has no doubt that physicians do carry this disease In treatment, the two great remedies are opium and quinine in large doses in the malignant cases

Dr Eastman, of Indianapolis, would insist that obstetric cases must be treated as others He wants to be put on record as saying that a woman should not necessarily lie in bed nine days, but must sit up every day to allow her bed to be thoroughly renovated, and to allow the clots to pass more thoroughly We cannot consider puerperal fever aside from surgical septicæmia He doubts if a woman was ever delivered of a child where an abrasion did not occur, in comparison with which the puncture for vaccination is small An old Irish woman had taught him a lesson by ordering the patient to get up and pass the clot in the chamber Simon recommended giving women more liberty after laceration of the cervix He was opposed to carbolic acid and in favor of the bichloride This latter he dissolved in glycerine, then diluted to 1 400 Ice or warm applications applied to the parts are both beneficial and both act in about the same way He has much faith in quinine

Pulse increased in frequency and temperature 101° F Perineum swollen, tender, and of pinkish hue, patient anxious and restless During his efforts at straining a few drops of urine would dribble away Gave no history of urethral inflammation, but stated that for a long time it had taken him nearly an hour to empty his bladder, the urine passing away by drops External hæmorrhoids were noticed, the result of the straining Found a narrow stricture at the meatus and the adjacent tissue indurated and contracted, also an impermeable stricture at the junction of the bulb with the membranous portion of the urethra and the prostate gland considerably enlarged Not even the finest cat-gut bougie or whalebone guide could be induced to enter the bladder The bladder was tapped above the pubes with an aspirator, and the urine withdrawn On the morning of the second and third days the effort at catheterism was renewed without success, and the urine was removed by the aspirator Fourth day the bladder was again distended and the general symptoms more alarming The extravasated fluid was distending the perineum and infiltrating the areolar tissue of the scrotum Pulse 116, temperature 102°, delirium Perineal section was decided upon in consultation with Dr F S Newcomer With the patient under the anæsthetic another effort was made to pass a guide Failing in this, the stricture at the meatus was freely incised, and Gouley's staff catheter, which is grooved on its posterior surface, was passed down to the front face of the stricture An incision was made through the median line of the perineum through the integument superficial and deep layers of the superficial fascia A pint and a half of pus and urine flowed through the wound The urethra was then opened on the point of the staff and the instrument slightly withdrawn A probe was passed through the stricture, the callous tissue divided, and the staff entered the bladder guided by a groove director introduced through the cut To make sure that no indurated tissue remained undivided, a good sized sound was introduced through the meatus to the bladder No catheter was left in the bladder, and the wound and bacteria were left to take care of themselves The urine flowed freely through the cut and urethra The after treatment consisted of the introduction of the sound every few days in order to maintain the normal calibre of the canal The patient recovered with no unfavorable symptom, but a slight fistula still remains, now eight months, at the point of incision This will close if the urethra is kept open The urine flows freely through the natural tract

After the limited experience of two cases it is the doctor's opinion that the danger of failure is due largely to cutting too freely after the front face of stricture is exposed This is the critical moment when we should rely largely on the probe, and keep in mind the anatomical relation of the parts Extravasated urine from stricture may pass in three directions Most frequently, as in the present case, it makes its way in front of the triangular ligament, distending the perineum and scrotum Should we be content to relieve the extravasation alone, or should we in addition deal with the stricture at the same time? Some eminent authorities claim that to relieve the retention is all that is required, and the stricture may be treated afterwards, and if necessary operated upon In the majority of instances the doctor believes that the stricture should be thoroughly divided at the time the retention is relieved Operation should be made early Rest can do much, but cannot remove the organized fibrous tissue any more than it can absorb the cicatrix of a burn Most patients will consent to but one operation, and it would be cruel not to take advantage of the opportunity and divide the stricture Its division does not add materially to the shock of the operation, and it at once places the patient on the high road to a speedy and perfect recovery

DR BYRD, of Quincy, *Ill*, spoke complimentary of Reginald Harrison's recent lecture before the British Medical Association at Cardiff,

ON URETHRAL STRICTURE

He recommended external urethrotomy as the safest operation, and gave his experience in the two hospitals at Quincy He had not found impermeable stricture, and believes in making the operation after the manner recommended by Reginald Harrison He would not advise the cutting of the prostate gland You may go beyond your legal rights He had recently used the urethral bougie, 23 American, scale 46 French He had no urethral fever to follow it

DR LEWIS BAUER said the question involved is, are there impermeable urethral strictures or not? He thought these strictures permeable When you have impermeable stricture you cannot introduce the instrument If you cannot evacuate the bladder and cannot go in through the penis, you must perform external urethrotomy He does not use chloroform, but puts the patient in the position for lithotomy, orders him to press down as if he were going to pass water, and with one quick thrust of the knife opens the urethra and the water gushes out He did not believe with Peterson that the bladder distends more upwardly than downwardly, but believes that it distends equally in every direction He thought internal urethrotomy could be performed easily and readily, and ought to be done more readily than it is There is liability to return if a fibrous stricture has been dilated by sounds He explained an instrument of his own which could be made to cut in any direction, thus opening up the different parts of the stricture He dwelt upon the necessity of disciplining the patient in the use of the catheter properly, for the urine must not pass over the wound

DR A M OWEN, of Evansville, arose to settle the point Is there, or is there not, impermeable stricture? He knows there is He had a patient who did not pass a drop of urine for ten years per urethra He met with a mechanical injury which left a cicatrix which closed the urethra *He found* ten or fifteen urinary fistulæ through the scroti He gave the particulars of the case, and explained minutely his treatment, which was successful

Dr Arch Dixon, of Henderson, Ky , related

A CASE OF GONORRHŒAL STRICTURE WHERE THE URETHRA WAS GROWN TOGETHER

Dr Joseph Eastman, of Indianapolis, said The paper urges the importance of a thorough knowledge of the perineum This is right, notwithstanding that Dr Bauer speaks lightly of this, and thinks that a distended urethra cannot be missed When we cut into the bladder of a female we relieve her of a suffering from cystitis worse than death Why should we not do so in the male? He thought there was here a field for study and improvement, and urged on those present to consider the matter carefully

Dr A C Bernays, of St Louis, said he thought the question whether or not impermeable stricture existed, was settled We have had two cases, one cicatricial, one gonorrhœal He considered the three operations, thought all were useful, but favored Cox's, or the English operation

Dr Sutcliffe, in closing the discussion, thought that tapping in front of the prostate gland, known as Gunther's operation, was excellent

Afternoon Session

Dr Wm Porter, of St Louis, read a letter addressed to the Society from Dr Morrell Mackenzie, of London, England, regretting his inability to be present, and wishing the Society a pleasant and profitable meeting

Dr Jas H Letcher, of Henderson, Ky , moved that the thanks of the Society be conveyed to Dr Mackenzie for his kind remembrance Passed

[Dr Mackenzie attended the meeting of the Society a few years ago, expressed himself as much pleased with it, and always remembers it]

Dr George Brinton Walker, of Evansville, Ind , read a paper on

PUERPERAL FEVER AND PUERPERAL SEPTICÆMIA

The word comes from *puer*, a child, and *parere*, to bring forth Although modern writers prefer another name in describing this condition, it is probable that the simple title, puerperal fever, will not soon be entirely abandoned The disease was recognized in the earliest antiquities Rachel, the beloved wife of the patriarch Jacob, as well as the wife of Phineas, is supposed to have died of this disease It was mentioned by Hippocrates, the discerning father of medicine First called puerperal fever by Dr Strother, in 1716 It is divided into sporadic and epidemic, or inflammatory and congestive Also divided into synochal, sthenic, or benign or typhoid, as thenic, putrid, or malignant In fatal cases patient dies three to ten days after confinement From eminent authorities we may consider puerperal fever to be an inflammatory disease, some sthenic, some asthenic It generally involves the peritoneum occasionally the appendages of the uterus and uterine veins and lymphatics The mode of reception of the poison is divided into auto and hetero infection Here the doctor quoted largely from Thomas's recent paper before the New York Academy of Medicine, and the discussion which followed He cited the conflicting testimony of both modern and ancient authors From an impartial consideration of all authors and his own experience the doctor was lead to the following statements

1 That the fever which attacks woman in the puerperal state may consist of numerous and distinct pathological conditions It may be a sthenic disease caused by injury or shock from the passage of the child through the genital tract

2 It may be asthenic, or malignant, from some occult cause associated with the traumaticism of labor

3 It may be the result of toxæmia from septic matters entering into and circulating through the vascular system

As to the agency of bacteria, he thought the subject may be regarded as undecided, and inviting further investigation Dr Byford thinks several diseases are included under the denomination of puerperal fever, especially as distinguished by the profession at large There are metritis and metro peritonitis without septic infection In the septicæmic variety treatment consists in relieving, 1st Inflammatory condition, 2d High temperature, 3d Malignant results of septicæmia, 4th Insufficient strength, tone up and stimulate the patient

In the purely inflammatory form the antiphlogistic treatment is indispensable In the malignant variety, opiates, stimulants, stupes externally, and calomel, quinine in 10, 20, 30, 60 grain doses, should be given The doctor, the nurse, and others about the patient should be clean, especially the patient herself He did not think ante-partal antiseptic injections advisable They are not only unnecessary, but really hurtful, by subjecting patient to a painful system of annoyance, which of itself may cause disease It is worse than meddlesome midwifery, because it anticipates labor and does not permit the woman to enjoy necessary rest when labor is completed

Dr S E Munford, of Princeton, Ind , recalled one case which resulted in death He had, the day previously, attended a case of erysipelas He has no doubt that physicians do carry this disease In treatment, the two great remedies are opium and quinine in large doses in the malignant cases

Dr Eastman, of Indianapolis, would insist that obstetric cases must be treated as others He wants to be put on record as saying that a woman should not necessarily lie in bed nine days, but must sit up every day to allow her bed to be thoroughly renovated, and to allow the clots to pass more thoroughly We cannot consider puerperal fever aside from surgical septicæmia He doubts if a woman was ever delivered of a child where an abrasion did not occur, in comparison with which the puncture for vaccination is small An old Irish woman had taught him a lesson by ordering the patient to get up and pass the clot in the chamber Simon recommended giving women more liberty after laceration of the cervix He was opposed to carbolic acid and in favor of the bichloride This latter he dissolved in glycerine, then diluted to 1 400 Ice or warm applications applied to the parts are both beneficial and both act in about the same way He has much faith in quinine and the salycilate of soda More faith in the prevention with the bichloride, and most in perfect cleansing of the bed every day

Dr Louis Bauer discussed auto infection He thinks prevention of infection to be a question of cleanliness, not one of time He thinks he has put it to the test in one of his cases He used his hands freely in a case of phlegmonous erysipelas, and did an ovariotomy the next day He took his accustomed bath, washed his hands, using a solution of ammonia, and changed his clothes He thinks the bichloride is generally accepted as the safest antiseptic, yet we find with it painful tenesmus straining, and death He thinks 1 400 too much, 1 10,000 has been found by experiment to kill bacteria Such a deadly poison certainly should not be used any more concentrated than necessary

Dr Arch Dixon, of Henderson, Ky, thought with Dr Eastman that puerperal septicæmia could not be separated from surgical septicæmia He allows his patients to get up and to pass the clots out into a chamber the second day It might be better to allow them to do so sooner He uses carbolic acid or bichloride solution, and recommends scrupulous cleanliness He believes that all cases come from the absorption of infectious matter

Dr E S McKee, of Cincinnati, thought it safe to use a post partal antiseptic vaginal injection He had been so trained in the clinic of Karl Braun, in Vienna, and had never omitted it since but that he regretted so doing Referred to a fatal case of puerperal septicæmia which he reported in the *Louisville Medical News*, Sept 5th, 1885 Preferred the bichloride to the carbolic acid

Dr James H Letcher, of Henderson, favored the greatest possible cleanliness He is not so much in favor of the routine vaginal injection as he was earlier in life The clots, he thinks, pass perfectly well in the reclining position

Dr Walker closed the discussion, saying the object of the paper had been to lay the present state of the subject before the Society and elicit discussion He had not such great confidence in large doses of quinine as some practitioners

(*To be concluded*)

OBSTETRICAL SOCIETY OF PHILADELPHIA

(*Concluded from page 333*)

Stated Meeting, Thursday, September 3d, 1885

Dr Goodell exhibited his improved uterine dilator He said that the main difficulty in the operation for the rapid dilatation of the cervical canal, lay in the liability of the blades of the instrument to slip out This he had in a great measure overcome by having shallow grooves cut into them Into these grooves the tissues sank, and the resulting friction kept the instrument in place Since he had called the attention of the Society to his instrument, not quite a year ago, he had performed the operation forty-one times for dysmenorrhœa and sterility, making in all 209 such cases In not a single instance had dangerous symptoms followed, and the average of success was a very large one He had become firmly convinced that for dysmenorrhœa and sterility the operation of rapid dilatation of the cervical canal would, except in some very rare cases of stenosis of the os externum, wholly supersede the cutting operation, the use of tents, or the slow dilatation by any means whatever, for by the former not only was the measure of success far greater, but the danger from inflammation was very much less He dilated the parts from three quarters of an inch to one inch and a quarter as measured off by the register in the handles, watching the cervix carefully to see what strain it could bear His instrument could be opened to the width of one and one half inches, but he resorted to that extreme divergence only when wishing to introduce his finger for diagnostic purposes This he could not ordinarily do unless the parts were relaxed from hæmorrhage Usually, however, when suspecting the existence of a polypus, he did not fine it needful to pass in his finger, for after a moderate dilatation he introduced a fenestrated forceps and opened it at hap hazard In this manner he has repeatedly caught and twisted off a polypus without knowing it was present, the subsequent removal of the growth through the os uteri being the most difficult part of the operation

Dr Baer was strongly impressed by the case of a lady whom he had delivered to day, as to the advisability of entirely giving up division of the cervix A year and a half ago he had slit up the cervix posteriorly, and to day he felt very anxious during the first stage of labor as to the probability of laceration of the uterus, starting from the seat of the former operation The anterior lip was very long coming down under the pubis and the posterior lip could not be felt When the uterus contains a polypus, the continued hæmorrhages reduce the contractility, and a single dilatation will sometimes enlarge the os sufficiently to admit the finger or forceps, but, if the uterus is healthy, it contracts immediately after the withdrawal of the dilator He could not recall an instance of inflammation following rapid dilatation Sterility of long standing is seldom cured by dilatation or any other means

Dr C M Wilson had seen recently, in the practice of Dr Ellwood Wilson, a uterus the cervix of which had been divided bilaterally some years ago The operation had resulted in the development of the symptoms peculiar to a bad laceration of the cervix, with ectropion Trachelorrhaphy was performed by Dr Agnew, with complete relief to the patient Dr Wilson mentioned this case to call attention to the change in opinion and practice since Emmett proposed the operation

Dr Longaker inquired as to the prevention of slipping of the dilator, and called attention to the original method of pressure over the fundus of the uterus

Dr J G Allen has performed rapid dilatation over seventy five times, and has never seen any bad results from the operation The blades of his instrument diverge as they separate, and there is no disposition to slip out The blades are more curved than in Dr. Goodell's instrument, he thinks that an advantage in holding the instrument in place, the handles are turned up so as not to touch the bed or table.

Dr. Goodell prefers the slight curve, so that in flexion of the uterus he can introduce the dilator with its curve reversed to the bend in the womb, and by opening the dilator in that position rectify the flexion of the organ. He prefers parallelism of the blades because the stenosis of the cervix is greatest at the external os, and there is no need for dilatation above the internal os. He considers it dangerous to press the fundus of the uterus down while using the dilator, for fear of wounding or even penetrating the tissues, and he uses a strong tenaculum to hold the organ, but since he had got Mr. Gemrig to roughen the blades by grooves, he had not been annoyed by the slipping of the instrument. He rarely finds it necessary to separate the blades more than one inch, but he sometimes does so to the extent of one and a half inches, especially when he wishes to introduce his finger into the uterine cavity.

Dr. Goodell exhibited two specimens of

PAROVARIAN CYSTS.

In each case the cyst was so detached from the ovary, that the former could have been taken away without injury to the ovary. He was greatly tempted to practice conservative surgery in these cases, and leave the ovaries untouched, but on account of apparently incipient cystic degeneration, they also were included in the ligature and removed. Both these cases were operated on in his private hospital, and both had recovered. In his experience, the removal of parovarian or of broad ligament cysts was one of the most successful of operations. Out of a large number which he had performed he could recall but a single fatal case, and in that the result seemed hardly due to the operation. The lady lived in a distant city, and he did not see her after the operation, which was a very easy one. At the end of a week the bowels were moved, the stitches removed, and everything gave promise of an unusually prompt convalescence. On the twelfth day, however, she was seized with uncontrollable vomiting, and she died on the seventeenth day. Six months previously, she had had an attack of vomiting from which she barely escaped with her life. Thus far this year he had had eighteen ovariotomies, and this was the only fatal case among them.

Dr. Montgomery wished to ascertain the opinion of the Society as to the advisability of removing the second ovary when, in an operation for the removal of an ovarian cyst, the other ovary was found to be slightly diseased. In his first ovariotomy, performed in 1879, the second ovary was found to contain numerous small cysts, it was not removed, and the patient has since been twice pregnant, and there has been no appearance of another tumor, nor any symptoms referable to the remaining ovary. If the climacteric has been passed there would be no question about it.

Dr. Baer inquired if tapping ever cured parovarian cysts? It was formerly reported as a means of cure. Do they always return after tapping? Would Dr. Goodell recommend tapping in an undoubted parovarian cyst? He, himself, felt strongly inclined toward abdominal section in all cases. He thinks the second ovary should be removed when it is not healthy, as the idea of a second operation is very depressing to a patient.

Dr. Montgomery knew of one instance of parovarian cyst which had been tapped and had refilled seven times. It was finally removed by him by peeling out the cyst, as on opening the abdomen he found the tumor universally adherent. Only one ligature was required, viz., on the stump of an enlarged ovary which bulged prominently into the cyst cavity.

Dr. J. G. Allen considered that, as an ovary somewhat diseased may give rise to a pregnancy, it should be left. We knew too little about the probability of the development of such small cysts into large ones. Until we have certain data on the subject, it must be considered a case of want of information and knowledge.

Dr. Parish was in accord with Dr. Allen as to the want of knowledge. He has seen diseased ovaries containing numerous small cysts in many autopsies, and there had been no symptoms during life to excite a suspicion of their existence. The existence of minute cysts cannot be considered as proving any liability to the production of large ones. If the second ovary contained a cyst as large as a partridge's egg, he would remove it, but if numerous cysts as small as a split pea were present, he would not. The possibility of conception should be considered as well as that of a cyst.

Dr. Goodell acknowledged the truth of the points made by Drs. Allen and Parish, and he believed that he had repeatedly removed the second ovary unnecessarily. Yet the history of his own ovariotomies shows a return of the disease in the remaining ovary in about two per cent., and he thought he erred on the safe and right side. The social conditions of the patient would always have a great weight with him. If an heir were wanted, or the patient were young, he would leave a suspicious-looking ovary, or try to remove the diseased portion of it. But in the majority of his cases, where there was any doubt, he removed the ovary. Of course, under such a rule, he must remove ovaries which might never give any trouble in the future. But the mental agony of women when informed that the operation must be performed a second time upon them, and, on the other hand, the great joy and satisfaction of patients when assured, after the close of an operation, that both ovaries had been removed, have determined him that, other things being equal, it is better to remove the second ovary. As to the cure of parovarian cysts by tapping, his own experience is not sufficient yet to decide absolutely. He would advise the radical operation, but if the patient, after understanding the liability of return, wishes it, he would tap, as there was but little danger from tapping such cysts. A patient was tapped by Dr. Atlee, some twenty years ago, five years afterwards the cyst filled and was tapped by Dr. Goodell. It then partly refilled, and so remained for a long while, the fluid then was gradually absorbed and never returned. He has had, beside and the salycilate of soda. More faith in the prevention with the bichloride, and most in perfect cleansing of the bed every day.

Dr. Louis Bauer discussed auto infection. He thinks prevention of infection to be a question of cleanliness, not one of time. He thinks he has put it to the test in one of his cases. He used his hands freely in a case of phlegmonous erysipelas, and did an ovariotomy the next day. He took his accustomed bath, washed his hands, using a solution of ammonia, and changed his clothes. He thinks the bichloride is generally accepted as the safest antiseptic, yet we find with it painful tenesmus, straining, and death. He thinks 1:400 too much, 1:10,000 has been found by experiment to kill bacteria. Such a deadly poison certainly should not be used any more concentrated than necessary.

Dr. Arch. Dixon, of Henderson, Ky., thought with Dr. Eastman that puerperal septicæmia could not be separated from surgical septicæmia. He allows his patients to get up and to pass the clots out into a chamber the second day. It might be better to allow them to do so sooner. He uses carbolic acid or bichloride solution, and recommends scrupulous cleanliness. He believes that all cases come from the absorption of infectious matter.

Dr. E. S. McKee, of Cincinnati, thought it safe to use a post partal antiseptic vaginal injection. He had been so trained in the clinic of Karl Braun, in Vienna, and had never omitted it since, but that he regretted so doing. Referred to a fatal case of puerperal septicæmia which he reported in the *Louisville Medical News*, Sept. 5th, 1885. Preferred the bichloride to the carbolic acid.

Dr. James H. Letcher, of Henderson, favored the greatest possible cleanliness. He is not so much in favor of the routine vaginal injection as he was earlier in life. The clots, he thinks, pass perfectly well in the reclining position.

Dr. Walker closed the discussion, saying the object of the paper had been to lay the present state of the subject before the Society and elicit discussion. He had not such great confidence in large doses of quinine as some practitioners.

(*To be concluded.*)

OBSTETRICAL SOCIETY OF PHILADELPHIA.

(*Concluded from page 333.*)

Stated Meeting, Thursday, September 3d, 1885.

Dr. Goodell exhibited his improved uterine dilator. He said that the main difficulty in the operation for the rapid dilatation of the cervical canal, lay in the liability of the blades of the instrument to slip out. This he had in a great measure overcome by having shallow grooves cut into them. Into these grooves the tissues sank, and the resulting friction kept the instrument in place. Since he had called the attention of the Society to his instrument, not quite a year ago, he had performed the operation forty-one times for dysmenorrhœa and sterility, making in all 209 such cases. In not a single instance had dangerous symptoms followed, and the average of success was a very large one. He had become firmly convinced that for dysmenorrhœa and sterility the operation of rapid dilatation of the cervical canal would, except in some very rare cases of stenosis of the os externum, wholly supersede the cutting operation, the use of tents, or the slow dilatation by any means whatever; for by the former not only was the measure of success far greater, but the danger from inflammation was very much less. He dilated the parts from three quarters of an inch to one inch and a quarter as measured off by the register in the handles, watching the cervix carefully to see what strain it could bear. His instrument could be opened to the width of one and one half inches, but he resorted to that extreme divergence only when wishing to introduce his finger for diagnostic purposes. This he could not ordinarily do unless the parts were relaxed from hæmorrhage. Usually, however, when suspecting the existence of a polypus, he did not fine it needful to pass in his finger, for after a moderate dilatation he introduced a fenestrated forceps and opened it at hap-hazard. In this manner he has repeatedly caught and twisted off a polypus without knowing it was present, the subsequent removal of the growth through the os uteri being the most difficult part of the operation.

Dr. Baer was strongly impressed by the case of a lady whom he had delivered to-day, as to the advisability of entirely giving up division of the cervix. A year and a half ago he had slit up the cervix posteriorly, and to-day he felt very anxious during the first stage of labor as to the probability of laceration of the uterus, starting from the seat of the former operation. The anterior lip was very long, coming down under the pubis, and the posterior lip could not be felt. When the uterus contains a polypus, the continued hæmorrhages reduce the contractility, and a single dilatation will sometimes enlarge the os sufficiently to admit the finger or forceps; but, if the uterus is healthy, it contracts immediately after the withdrawal of the dilator. He could not recall an instance of inflammation following rapid dilatation. Sterility of long standing is seldom cured by dilatation or any other means.

Dr. C. M. Wilson had seen recently in the practice of Dr. Ellwood Wilson, a uterus, the cervix of which had been divided bilaterally some years ago. The operation had resulted in the development of the symptoms peculiar to a bad laceration of the cervix, with ectropion. Trachelorrhaphy was performed by Dr. Agnew, with complete relief to the patient. Dr. Wilson mentioned this case to call attention to the change in opinion and practice since Emmett proposed the operation.

Dr. Longaker inquired as to the prevention of slipping of the dilator, and called attention to the original method of pressure over the fundus of the uterus.

Dr. J. G. Allen has performed rapid dilatation over seventy five times, and has never seen any bad results from the operation. The blades of his instrument diverge as they separate, and there is no disposition to slip out. The blades are more curved than in Dr. Goodell's instrument, he thinks that an advantage in holding the instrument in place, the handles are turned up so as not to touch the bed or table.

Dr. Goodell prefers the slight curve, so that in flexion of the uterus he can introduce the dilator with its curve reversed to the bend in the womb, and by opening the dilator in that position rectify the flexion of the organ. He prefers parallelism of the blades because the stenosis of the cervix is greatest at the external os, and there is no need for dilatation above the internal os. He considers it dangerous to press the fundus of the uterus down while using the dilator, for fear of wounding or even penetrating the tissues, and he uses a strong tenaculum to hold the organ, but since he had got Mr. Gemrig to roughen the blades by grooves, he had not been annoyed by the slipping of the instrument. He rarely finds it necessary to separate the blades more than one inch, but he sometimes does so to the extent of one and a half inches, especially when he wishes to introduce his finger into the uterine cavity.

Dr. Goodell exhibited two specimens of

PAROVARIAN CYSTS.

In each case the cyst was so detached from the ovary, that the former could have been taken away without injury to the ovary. He was greatly tempted to practice conservative surgery in these cases, and leave the ovaries untouched, but on account of apparently incipient cystic degeneration, they also were included in the ligature and removed. Both these cases were operated on in his private hospital, and both had recovered. In his experience, the removal of parovarian or of broad ligament cysts was one of the most successful of operations. Out of a large number which he had performed he could recall but a single fatal case, and in that the result seemed hardly due to the operation. The lady lived in a distant city, and he did not see her after the operation, which was a very easy one. At the end of a week the bowels were moved, the stitches removed, and everything gave promise of an unusually prompt convalescence. On the twelfth day, however, she was seized with uncontrollable vomiting, and she died on the seventeenth day. Six months previously, she had had an attack of vomiting from which she barely escaped with her life. Thus far this year he had had eighteen ovariotomies, and this was the only fatal case among them.

Dr. Montgomery wished to ascertain the opinion of the Society as to the advisability of removing the second ovary when, in an operation for the removal of an ovarian cyst, the other ovary was found to be slightly diseased. In his first ovariotomy, performed in 1879, the second ovary was found to contain numerous small cysts; it was not removed, and the patient has since been twice pregnant, and there has been no appearance of another tumor, nor any symptoms referable to the remaining ovary. If the climacteric has been passed there would be no question about it.

Dr. Baer inquired if tapping ever cured parovarian cysts? It was formerly reported as a means of cure. Do they always return after tapping? Would Dr. Goodell recommend tapping in an undoubted parovarian cyst? He, himself, felt strongly inclined toward abdominal section in all cases. He thinks the second ovary should be removed when it is not healthy, as the idea of a second operation is very depressing to a patient.

Dr. Montgomery knew of one instance of parovarian cyst which had been tapped and had refilled seven times. It was finally removed by him by peeling out the cyst, as on opening the abdomen he found the tumor universally adherent. Only one ligature was required, viz., on the stump of an enlarged ovary which bulged prominently into the cyst cavity.

Dr. J. G. Allen considered that, as an ovary somewhat diseased may give rise to a pregnancy, it should be left. We knew too little about the probability of the development of such small cysts into large ones. Until we have certain data on the subject, it must be considered a case of want of information and knowledge.

Dr. Parish was in accord with Dr. Allen as to the want of knowledge. He has seen diseased ovaries containing numerous small cysts in many autopsies, and there had been no symptoms during life to excite a suspicion of their existence. The existence of minute cysts cannot be considered as proving any liability to the production of large ones. If the second ovary contained a cyst as large as a partridge's egg, he would remove it, but if numerous cysts as small as a split pea were present, he would not. The possibility of conception should be considered as well as that of a cyst.

Dr. Goodell acknowledged the truth of the points made by Drs. Allen and Parish and he believed that he had repeatedly removed the second ovary unnecessarily. Yet the history of his own ovariotomies shows a return of the disease in the remaining ovary in about two per cent., and he thought he erred on the safe and right side. The social conditions of the patient would always have a great weight with him. If an heir were wanted, or the patient were young, he would leave a suspicious-looking ovary, or try to remove the diseased portion of it. But in the majority of his cases, where there was any doubt, he removed the ovary. Of course, under such a rule, he must remove ovaries which might never give any trouble in the future. But the mental agony of women when informed that the operation must be performed a second time upon them, and, on the other hand, the great joy and satisfaction of patients when assured, after the close of an operation, that both ovaries had been removed, have determined him that, other things being equal, it is better to remove the second ovary. As to the cure of parovarian cysts by tapping, his own experience is not sufficient yet to decide absolutely. He would advise the radical operation, but if the patient, after understanding the liability of return, wishes it, he would tap, as there was but little danger from tapping such cysts. A patient was tapped by Dr. Atlee, some twenty years ago, five years afterwards the cyst filled and was tapped by Dr. Goodell. It then partly refilled, and so remained for a long while, the fluid then was gradually absorbed and never returned. He has had, beside this one, two cases which he tapped, one five years ago and the other three years ago, and there has been no return whatever of the fluid. On the other hand, he has had two or three cases in which the cyst burst spontaneously several times, and yet refilled invariably. The rupture was followed immediately by some collapse and pain, and later by an excessive secretion of urine, with complete subsidence of the tumor. He had also heard of several cases of rupture, but, as far as he has learned the history of such cases, the cyst has always returned. The reports of the cure of ovarian cysts by tapping and injection of tincture of iodine *must be true only* of parovarian cysts.

Dr. Harris knew of a case of parovarian cyst in which fourteen years had elapsed between the tapping and the subsequent refilling.

Dr. E. E. Montgomery read the following supplement to his paper on

BROMIDE OF ETHYL

I read a paper on bromide of ethyl as an anæsthetic in labor, before the April meeting of this Society. Although I did not attempt a history of the early administration of the drug, subsequent investigation has shown me that I did Dr. Turnbull injustice in not mentioning that to him we are indebted for the revival of this agent, and its first use in this country. In following the German literature, by which I was led to use this drug in labor, I ascribed its first obstetrical use to Lebert, of Paris. The first case in which he used it was for the application of forceps, and occurred in March, 1881, but a paper published by Dr. Turnbull (*Med. Bul.*, June, 1880) shows that he had then used it in a second case of labor, and spoke in high terms of its peculiar advantages. Dr. H. Augustus Wilson had used it in labor prior to August 7, 1880, when he published an article upon this drug (*Med. and Surg. Rep.*, Aug. 7, 1880). It becomes quite evident that the first obstetrical trial of this agent was made in this city, and the priority lies between the gentlemen named. Various mixtures of the ethyl have been advocated in labor and minor operations. Booth, of Ohio (*Ther. Gaz.*, 1884–5, p. 159) recommends alcohol two parts, chloroform and bromide of ethyl each one part. W. H. Byrd, Quincy, Ill. (*Ther. Gaz.*, March, 1884) has used bromide of ethyl one part, chloroform three parts, alcohol four parts, in some ninety eight cases, without a single unpleasant symptom. It has not everywhere received the same condemnation that is shown by the hesitancy to use it in this city. In spite of the bad name given it by two deaths under its use, and the apparently dangerous symptoms induced by experiments upon the lower animals, its use has been revived by Chisolm (*Maryland Med. Journal*, 1882–3) and Prince (*St. Louis Med. and Surg. Jour.*, 1883, XIV, 297), who strongly urges its use in minor operations and preliminary to the administration of ether. The last named has reported 500 cases in which it was used without a single unpleasant symptom. A leading article in the *Ther. Gaz.*, June, 1885, advocates a redistillation of a mixture of bromide of ethyl and olive oil as a valuable and safe anæsthetic in labor. These facts are referred to simply to induce the profession to give this anæsthetic a fair trial in ameliorating the terrible suffering of natural labor.

Dr. Montgomery exhibited a

UTERINE FIBROID POLYPUS

Miss R., æt. 38 years, began to menstruate at 17 years. The flow was regular, quite free, lasting a week, and was attended with pain the first three days. Ten years ago she had a hemorrhage, and subsequently several such attacks. Two years later she had a severe hemorrhage followed by a bloody discharge continuing several months, since which time she has never been regular. The flow would occur too frequently, be very profuse and attended with pain and loss of flesh. The symptoms were more marked during the last year. At one of the hospital clinics, some years ago, the difficulty was ascribed to anteversion of the womb. Dr. Bournonville examined her three weeks ago, diagnosticated the condition fibroid polypus, and referred the case to me for treatment. She was quite pale, lips bloodless, complained of pelvic pain and of a constant bloody discharge which amounted to hemorrhage upon the slightest exertion. The vagina was dilated by a tumor the size of an orange, about whose pedicle could be felt the neck of the uterus. The finger passed into the os and about the tumor without difficulty. Every examination was followed by severe hemorrhage. The pedicle was cut through by means of the wire ecraseur, and the tumor removed by means of a pair of polypus forceps. Considerable hemorrhage followed its removal. As this was not controlled by application of hot water, a tampon saturated with a solution of subsulphate of iron was introduced. This was removed on the second day. On the fourth her temperature ran up to 103°, she had a chill and pains in various parts of her body. These symptoms vanished under the use of quinine, digitalis and opium. Five weeks after the operation she appeared much improved, has had no bleeding since, her appetite and strength are greatly increased, the uterus was normal is size, the cervix still dilatable and will admit the finger with pressure; the cervical membrane was in good condition. The tumor was the size of an orange, mucous membrane of the lower surface was ulcerated so that vessels were ruptured, allowing hemorrhage on any exertion. The case is of interest from the long continuance of the hemorrhage, and illustrates the importance of early and careful examination of the cavity of the uterus in cases of protracted hemorrhage.

Dr. Goodell seldom uses the wire now for the removal of uterine polypi. He prefers traction with twisting or enucleation by the finger. There is less bleeding and he is afraid of "cupping" of the fundus uteri and its injury by being included in the wire loop. He had made traction with the obstetric forceps, and enucleated tumors so large as to rupture the perineum even after lateral incisions had been made in the labia. He partially inverted the womb, enucleated the tumor and thus restored the organ to its proper form. The tumor some times occludes the os, and fetid pus from necroses of the growth is imprisoned above it, giving rise to a suspicion of cancer.

Dr Baer thinks Monsel's solution may have caused the high temperature, vinegar would have been a better hemostatic, and it is also an antiseptic From the appearance of the specimen, a portion of the adventitious growth seems to have been left behind, and it would be interesting to know the history of the stump

Dr Parish has removed many fibroids of various sizes, and sometimes with degenerated tissues and noisome odors The rapid recovery of Dr Montgomery's patient was remarkable It is much to be regretted when any portion of the tumor is left, as necrotic change is rapid and decided in such tissue and there is danger of blood poisoning The pedicle, however, generally shrinks and disappears

Dr Goodell remarked that this tumor appeared to be sessile and had been wholly removed The pedicle proper is usually simply mucous membrane without adventitious tissue, and it makes very little difference if some of it is left behind, as it shrivels away and is absorbed

Dr Allen sometimes regretted that he was compelled to leave a portion of pedicle or tumor in the uterus, but he has never seen any bad consequences follow it He prefers vinegar to iron as a hæmostatic and considers it as good an antiseptic as carbolic acid

Dr Montgomery remarked that the wire evidently brought away all the tumor There was no evidence of any remnant on examination to day In one case a portion of tumor or pedicle was unavoidably left, and he removed it some time afterwards by means of a tenaculum He wounded his finger in doing so and suffered from septicæmia The woman had an attack of cellulitis

STATE MEDICINE

GOOD HEALTH IN MICHIGAN

Sanitarians have claimed that the observance of sanitary precautions would diminish sickness from many diseases, a lessening of sickness in the summer of 1885 was, accordingly, expected On studying the combined reports of sickness in Michigan in July, 1885, compared with the average for July in the seven years 1879–1885, it is found that sickness from all the more important diseases was in July, 1885, much less than the average A supplementary bulletin was issued giving a list of diseases, arranged in order of greatest diminution of prevalence From this, and from other information received at this office, it seems very probable that much of the great decrease in sickness was due to the increased sanitary precautions on account of the expected visitation of cholera

A study of the statistics now exhibits a similar decrease in sickness from nearly every disease in August, 1885, compared with the average of preceding Augusts, 1879–1885 From fevers and bowel complaints there is shown to be a very marked decrease This seems to confirm what was claimed in the supplementary bulletin for July It is proper to state, however, that although in July, 1885, the meteorological conditions were not very favorable, in August, 1885, they were favorable to health

Henry B Baker, Sec'y

Lansing, Mich , Sept 4, 1885

DOMESTIC CORRESPONDENCE

LETTER FROM NEW YORK

Resumption of Society Meetings—Proceedings of Society of Medical Jurisprudence and State Medicine—Commissioners of Charities, etc , etc

The Medical Society season was opened on the 17th, when the Society of Medical Jurisprudence and State Medicine held its first meeting after the summer vacation On this occasion Mr Charles F Wingate, one of the leading sanitary engineers of the city, read a paper on some of the sanitary problems of New York There was room for reform, he said, in the mode of living among the well-to do, as well as among the tenement house population One great trouble was that they are too economical of their space, for while many of the rich could easily afford room for a garden and some growing flowers, it was the almost invariable custom to take up nearly the entire lot with buildings, so that the houses were insufficiently lighted and ventilated Again, the homes of the wealthy are filled with elegant upholsteries and tapestries, and these, on account of their absorbent properties, are likely to be sources of the greatest possible danger in case of there being any bad plumbing or unwholesome cellars about the premises On account of the enormous manufacturing interests of the city, he continued, the growth of industrial disease was rapid here He then dwelt for some time on the sanitary defects of the public schools by reason of which the average of days lost from sickness by children in New York was rendered much too large, in comparison with the state of affairs in many other localities Unfortunately, there was too much apathy on the part of the authorities in regard to the subject Mr Wingate spoke very highly of the efficiency of the new plumbing law, the good results of which had been repeatedly observed by him The effect of it was, that bad plumbing was now found to be confined almost entirely to the old houses As to the requisites for improving the health of the city, he suggested, among other things, better drainage, and the building of one or two large main receiving sewers, the cremating of garbage, more water, repairing of the streets with something besides cobblestones, more public baths, and more small parks or breathing spaces in down-town districts It would be a good idea, he thought, to have one or two of the city piers terraced and transformed into promenades for the people

The Commissioners of Charities and Corrections, having been empowered by the Legislature to do so, have purchased 860 acres of land near Central Islip, Long Island, to be used as a farm for the insane, where many of those now inmates of the crowded city institutions on the islands in the East river can be employed in light occupations The tract of land purchased is forty-three miles from New York, and consists of wild land unimproved, but is well watered and timbered Such a farm for the insane has long been needed here, and it will, no doubt, prove a lasting benefit to the community

The Italian brig, La Regina, recently arrived at lower quarantine with yellow fever on board, three of the crew being affected with the disease at the time of the arrival of the vessel These were at once transferred to the hospital in the lower bay The captain informed Health Officer Smith that he sailed from Cayenne, August 1st, and that shortly after leaving port Captain Kerne, of Prospect, Me, an old shipmaster, who was a passenger, was taken with yellow fever He died August 4th, and was buried at sea, and before the voyage was ended the mate and three seamen also died of the disease and were buried at sea

Dr Cyrus Edson, chief of the Second Sanitary Division of the Board of Health, who has been doing an excellent work during the past summer in seizing large quantities of fruit and other articles that were unfit to eat, was gratified to find, on making a recent raid upon the Hebrew markets in the lower part of the city, the vendors in which had previously been peculiarly troublesome in their disregard of the law, that good vegetables, fruit and meat were on nearly all of the stalls The consequence was that he had only to confiscate some five hundred pounds of unwholesome food, instead of from three to six tons, as on former occasions

That some of our prominent medical men have an eye to the main chance must be acknowledged, if the following statement, reported by a writer in one of the daily papers, is correct "That man made a clear $25,000 last year," said a friend to me the other day pointing out a well known New York physician "I mean $25,000 above and clear of the big revenue that comes from his city practice How? Two years ago he established an inebriate asylum in a village fifty miles out of town, and fancy fees for treatment there are making him a fortune Though the general public does not know that he is in this kind of business, some of the richest families in this town are sending him checks" P B P

A CRITICISM

To THE EDITOR OF THE JOURNAL

Dear Sir —While I have no ambition to pose myself in journalistic notoriety, yet I occasionally see some things so ludicrous that I almost feel like taking up my well-worn goosequill and scratching off some of my mental effusions, even though it be with no better logic or sense of propriety than I occasionally see in some of the journals I take and read

I have now particular reference to the *Columbus Journal of Medicine*, edited by J F Baldwin, M D, in the September number of which he, in speaking about the International Medical Congress, uses the following language "The International Congress muddle is in a little worse shape than when we wrote a month ago, that is, many additional resignations have been sent in" But the wise, well posted editor fails to give the names of the *many* who have resigned in the last month, and then he goes on to say "The JOURNAL of the Association still keeps a stiff upper lip, *and swears it is not going to be much of a shower, and devotes its energy to abusing those who have resigned*" Now, I am a constant reader of the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, and I would like for the wise editor of the *Columbus Journal* to point out where and when the venerable editor of the JOURNAL indulged in abuse, either personally or professionally, of those eminent gentlemen who have seen fit to resign their position on, or participation in the Committee of Arrangements But that is not all, in the same article the editor goes on to say "The JOURNAL (meaning the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION) at one time held the key to the situation (and I think it does yet), it could have changed the entire aspect of affairs, if it had only chosen to act the peacemaker, but the *choleric* old gentleman who acts as editor has simply made himself an offensive partisan, whose rulings fall on heedless ears"

Now, if the editor of the *Columbus Journal* had said *headless* instead of *heedless*, he would have hit the nail square on the *ear*, less the head But, to be brief, the editor of the *Columbus Journal* reminds me, in his low flung vulgar attack upon the venerable and able editor of the JOURNAL, of a very small *fist* running out in the street and barking at a noble mastiff, or a very young chicken trying to crow before the pin feathers had begun to sprout Trusting that the youthful editor of the *Columbus Journal* will learn from this hint a slight sense of journalistic propriety, and some little sense of the propriety and respect due a member of the medical profession, and especially one whose age and brilliant service in the profession have won for him the enviable distinction of Nestor, among his professional brethren J M

Ironton, Ohio, Sept 18, 1885

EARLY AND SUCCESSFUL LAPAROTOMY OPERATION

To THE EDITOR OF THE JOURNAL

Dear Sir —The other day, in glancing over a file of old newspapers, the following paragraph was observed It is copied verbatim, and though meagre in details it furnishes conclusive evidence of an early and successful laparotomy operation, by William Baynham, of Virginia This gentleman was, in his day, one of the most accomplished anatomists and surgeons He was born in Caroline Co, Va, Dec 7, 1749, and died at his residence in Essex Co, Va, Dec 8, 1814 After studying with his father, Dr John Baynham, he went to England to further prosecute his studies He remained in London, connected with St Thomas's Hospital and as a practising surgeon, for sixteen years On his return to America, which he had left as colonies, they had, in his absence, become a Nation He settled to practise his profession in Essex, and to the close of his life had a large and responsible practice At the date of this operation there were no medical journals published in the United States He may have reported it to some of the medical societies to which he belonged in London, or later to journals published in America He did report a case or cases of extra uterine conception, and this case may be the one However, as all cases of this kind are of special interest to the surgeon and gynæcologist, I venture, at the risk of a duplication, to request you to give it a place in your widely read and influential journal

I

RICHMOND, [VA ,] Jan'y 26, 1791

On Saturday, the 14th inst , Mrs Locke, wife of Mr John Locke, of Caroline county [Va], was delivered of a dead child, which she had carried for upwards of ten years The child appeared to have been of the size of a full grown one of nine months old, and was extracted through an opening made in the side of its mother by Dr [William] Baynham We are happy to hear that Mrs Locke is as well as can be expected after so uncommon and painful an operation, which she is said to have borne with great fortitude —*The Georgia Gazette*, Thursday, March 10, 1791

PLACENTA PRÆVIA

On the morning of March 30, 1881, I was called in haste to see Mrs S A , primapara, aged 22 years When I entered the room the nurse informed me that the patient had had some slight pains during the night, but thought it not necessary to send for me until daylight, but that about twenty minutes previously she felt a gush of blood, and, as she said, was then flowing "horridly" Sitting on the side of the bed I made an examination, and found the os uteri dilated nearly the size of a silver dollar, with the placenta lying across the opening and adherent

Labor pains were slow, having occurred but twice since she began to flow Forcibly passing the index finger between the placenta and cervix, I found a vertex presentation, third position Assuring the patient, who was already badly scared, that she was in no danger, but that it was best, for the safety of the babe, to apply forceps and deliver at once, I ruptured the membranes, and told the husband to give her one teaspoonful of Squibb's fluid extract of ergot with two of brandy Without waiting to change the position of the patient across the bed, I applied the forceps, and began slight traction, when strong contraction of the uterus took place I increased the traction on the forceps with the right hand, and with the left on the fundus of the uterus made gentle but steady pressure downwards As soon as the head began pressing upon the perineum I changed my hand from the abdomen and supported the perineum

Fifteen minutes from my first entrance into the room a large male child was born, to all appearances dead As I had previously ordered the nurse to bring me a dish pan of warm soft water, I placed the child into it once, and began artificial respiration I was rewarded in five minutes by its showing signs of life, and in seven minutes by hearing it cry lustily Turning my attention to the mother, I found a very slight tear in the perineum The placenta came down with and around the neck of the child

The method of procedure in this case might be called "meddlesome midwifery," but I think the end justified the means Mother and child progressed nicely, and I have since attended her in confinement, using the forceps as labor was somewhat tedious, and as she wished to be delivered as quickly as before

This note has been called out by reading the report of an interesting case of Dr H V Sweringen, of Fort Wayne, Ind , on "Placenta Prævia," published in the JOURNAL of August 29

B M J CONKLIN, M D

Alexandria, Dak , Sept 8, 1885

BOOK REVIEWS

ANATOMY, PHYSIOLOGY, AND HYGIENE A Manual for the Use of Colleges, Schools, and General Readers By JEROME WALKER, M D, Lecturer upon Anatomy, Physiology and Hygiene at the Central School, Brooklyn, and upon Diseases of Children at the Long Island College Hospital, etc , etc With Illustrations New York A Lovell & Co , 1885

In order to give an idea of the scope of this book, and the careful manner in which it has been prepared, we cannot do better than give the following extract from the author's preface

"The kind of type and paper were selected under the advice of the well known physician and oculist, Dr C R Agnew, of New York Dr L C Gray, Professor of Mental and Nervous Diseases in the New York Polyclinic Medical School, and Dr J C Shaw, Superintendent of the King's County Insane Asylum, have carefully reviewed the manuscript and proof of the chapters on the Nervous System In like manner, Dr A Mathewson, Ophthalmic Surgeon to St John's Hospital, and the Brooklyn Eye and Ear Hospital, has reviewed the chapters on Sight and Hearing Dr E H Bartley, Analytical Chemist to the Department of Health of the City of Brooklyn, and Lecturer on Chemistry at the Long Island College Hospital, has examined that portion of chapter X which relates to Water, Dr T R French, Consulting Laryngoscopic Surgeon to St Mary's Hospital, etc , and Dr S Sherwell, Physician to the Throat Department of the Brooklyn Eye and Ear Hospital, have reviewed the manuscript and proof of the chapter on Voice, and Dr J H H Burge, Surgeon to the Long Island Hospital, has reviewed the manuscript and proof of the chapter on Emergencies "

The interest of the reader begins at the very preface of this book, and does not flag until the final page is finished For the purposes for which it is written it is the most interesting and the fairest exponent of present physiological and hygienic knowledge that has ever appeared It should be used in every school, and should be a member of every family —more especially of those in which there are young people It is a pleasure to read and review such an excellent book

ASSOCIATION ITEMS

MEMBERSHIP BY APPLICATION

At the meeting of the American Medical Association held at Washington, in May, 1884, an amendment to Regulation II was adopted, which provides that membership in the Association shall be obtainable by any member of a State or County Medical Society recognized by the Association, upon application endorsed by the President and Secretary of said Society, and shall be retained so long as he shall remain in good standing in his local Society, and shall pay his annual dues to the Association Hitherto attendance as a delegate at an annual meeting has been necessary in order to obtain such membership

Application for membership, accompanied with FIVE DOLLARS, for annual dues, and the Certificate of Membership in the local Society, should be sent directly to the undersigned, on receipt of which the weekly JOURNAL OF THE ASSOCIATION will be forwarded for one year

RICHARD J DUNGLISON, M D , *Treasurer*
Lock Box 1274, Philadelphia, Pa

MISCELLANEOUS

RESIGNATION —We are informed that Prof J J M Angear, of this city, Professor of Principles of Medicine in the College of Physicians and Surgeons of Chicago, has resigned his position in that institution

THE ILLINOIS STATE BOARD OF HEALTH —The State Board of Health for Illinois sends us a number of documents regarding its work, which show that the Board is earnestly and energetically striving to instil into the minds of every one that it can reach a knowledge of the principles and practice of public hygiene Its last quarterly report contains a gratifying account of progress in this direction The most important effort of the Board at the present time is the compilation of a State Sanitary Survey, forms for which have recently been compiled, and sent all over the State The schedule to be filled up appears to contain everything that is requisite for a complete knowledge of the sanitary circumstances of each house, and thus of each district, and we can well understand that the facts which the survey has revealed are stirring up the local authorities to greater sanitary activity We wish the Illinois Board of Health all success in its praiseworthy efforts to fulfil the objects of its creation —*Brit Med Jour* , Aug 8, 1885

AMERICAN RHINOLOGICAL ASSOCIATION —The following are the subjects of some of the papers (with the authors' names and addresses) to be read at the 3rd meeting of the American Rhinological Association to be held at Lexington, Ky , Oct 6th, 1885

Address to the Association on Rhinology, by the President P W Logan, M D , of Knoxville, Tenn

Chronic Otitis Media, its Treatment in Connection with Nasal Disease By Hiram Christopher, M D , of St Joseph, Mo

Self-Deception By the same author

Hypertrophic Rhinitis, its Sequelae and Treatment By J A Stucky, M D , of Lexington, Ky

Treatment of Catarrh, Acute and Chronic By A DeVilbiss, M D , of Toledo, Ohio

Treatment of Neoplasms of the Naso-pharyngeal Cavity A New Snare By J G Carpenter, M D , of Stanford, Ky

Aural Catarrh and Treatment by Different Methods with the Theory of each System By Chas A S Sims, M D , of St Joseph, Mo

Chronic Conjunctivitis Dependent upon Intra Nasal Disease By N R Gordon, M D , of Springfield, Ill

Demonstrations (on the Cadaver) of the Nasal and Pharyngo-nasal Cavities, the Pharynx and Larynx The Sections of the Cadaver will show all the Cavities, Canals and Sinuses connected with the Nasal and Pharyngo Nasal Cavities By Thos F Rumbold, M D , of St Louis, Mo

Demonstrations of the Manner of Making Applications by means of the Spray Producers, the age of the Patients being Respectively 1, 3, 8, 15 and 20 years and older By the same author

Removal of Foreign Bodies and Tumors from the Upper Air Passages, with Demonstrations on a Phantom Head By the same author

Treatment of Pruritic Rhinitis (Hay Fever), by Spray Producers alone, Cases By the same author

On the Treatment of Secondary and Tertiary Syphilis of the Larynx, Pharynx and Mouth By Jos B Payne, M D , of Hot Springs, Ark

A few Suggestions on Hypertrophy of the Turbinated Processes By E F Henderson, M D , of Los Angelos, Cal

Seven other papers are promised, but the subjects have not yet been given to the Secretary

The full Programme will be ready to mail to any address on and after the 23rd of Sept , on application to any of the above members, or to

CHAS A S SIMS, M D , Sec'y,
St Joseph Mo

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM SEPTEMBER 12 1885 TO SEPTEMBER 18 1885

Col John Campbell Surgeon, retired from active service, Sept 16, 1885 (S O 212, A G O , Sept 16, 1885)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING SEPTEMBER 10 1885

Murray, J M , Passed Asst Surgeon, resignation accepted, to take effect Jan 1, 1886

Ross, J W , Surgeon, to special duty at New York

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE FOUR WEEKS ENDED SEPTEMBER 19 1885

Vansant, John, Surgeon, to proceed to New Orleans, La , Sept 16, 1885

Hutton, W H H , Surgeon, when relieved, to proceed to Mobile, Ala Sept 16, 1885

Long, W H , Surgeon, granted leave of absence for ten days, Sept 1 1885 When relieved, to proceed to Detroit, Mich Sept 19, 1885

Fessenden, C S D , Surgeon to proceed to Norfolk, Va Sept 16, 1885

Sawtelle, H W , Surgeon, when relieved, to proceed to San Francisco, Cal Sept 18, 1885

Godfrey, John, Surgeon, when relieved, to proceed to Louisville, Ky , Sept 16 1885

Goldsborough, C B Passed Asst Surgeon, when relieved, to proceed to St Louis, Mo

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol V   Chicago, October 3, 1885   No 14

ORIGINAL ARTICLES

THE SURGICAL TREATMENT OF CYSTS OF THE PANCREAS[1]

BY N SENN, M D,

OF MILWAUKEE WIS SURGEON TO THE MILWAUKEE HOSPITAL AND PROFESSOR OF PRINCIPLES AND PRACTICE OF SURGERY IN THE COLLEGE OF PHYSICIANS AND SURGEONS CHICAGO ILL

(*Concluded*[2])

Under the benign influence of aseptic surgery the domain of operative treatment of disease has been gradually but steadily expanding, so that, even at the present time, almost every organ of the body is within reach of surgical aid when it has become the seat of injury or disease The sphere of the physician is constantly being narrowed by successive achievements of modern surgery, which have been and are still multiplying with wonderful rapidity The useless and often pernicious administration of drugs for the cure of local affections must and will yield to rational local treatment Aseptic surgery has created a new era in the diagnosis of disease All the large cavities can now be opened and the organs examined with comparative immunity In obscure cases, speculative diagnosis must give way to direct inspection and palpation

Aseptic surgery has also revolutionized that most important branch of medical science—experimental physiology and pathology The realization of the object of our experiment is no longer marred or entirely frustrated by septic inflammation Recent experimental research has established many new facts in physiology and has laid the foundation for modern pathology Organs and parts of organs which were heretofore regarded as essential to the proper performance of the functions of life have been successfully removed in animals without producing any immediate or remote effects, and the knowledge thus obtained has been applied in practice, with the result of establishing, upon legitimate grounds, a number of the most brilliant and life-saving operations The surgery of the brain, the lungs, the heart, the liver, the kidneys, the gastro intestinal canal, is only in its infancy, and yet it has contributed largely towards relieving suffering and prolonging life, and at the same time, it has added lustre both to the science and the art of surgery Abdominal surgery is equivalent to aseptic surgery, and as such it is regarded favorably by many in the light of a new specialty Modern surgery has not only added precision to the diagnosis of obscure abdominal affections, but in many instances offers the only inducement for successful treatment Surgical affections of the kidney, spleen, stomach, intestines, and the essential organs of procreation in the female, have for some time constituted a fertile soil for surgical labor, with a certain promise for a rich harvest in the future

Of all abdominal organs, the pancreas has been least frequently subjected to surgical treatment The anatomical location of the organ, and the obscurity of its affections, furnish a sufficiently satisfactory explanation for this statement Situated high up in the abdominal cavity, and hidden behind such important organs as the stomach, omentum, and transverse colon, it is the least accessible of all abdominal organs, and on this account, its affections, wrapped in obscurity, have for the most part constituted objects for empirical medication The relation of this gland to surrounding organs, and its great distance from the anterior wall of the abdomen, the only point of approach, necessarily offer serious obstacles to diagnosis and direct treatment In a diagnostic point of view I may also refer to another great difficulty—our want of positive knowledge concerning the physiological functions performed by this gland in the process of digestion As the symptomatology of all affections of the pancreas is always obscure, and a probable diagnosis can only be made in cases where the gland has become considerably enlarged by disease, it is apparent that our present clinical knowledge is limited to diseases which increase the size of the organ to a sufficient extent to determine their existence by palpation Primary malignant disease of the pancreas, when it has advanced to such an extent that its presence can be diagnosticated with certainty by physical signs, will have invaded the adjacent tissues to such a degree as to preclude the advisability of an operation, consequently the efforts of the surgeon, for the present at least, must be directed exclusively towards the recognition and treatment of benign affections of this gland Clinical experience does not extend beyond an imperfect knowledge of cysts of the pancreas

The pancreas, like other secretory organs, is prone to become the seat of cystic tumors, the result of obliteration or obstruction of the common duct, or one or more of its branches Cysts originating in this manner are true retention cysts, containing the physiological secretion from the distal portion of the gland tissue, with perhaps accidental products, such as altered secretions, blood, and the products of inflammation

---

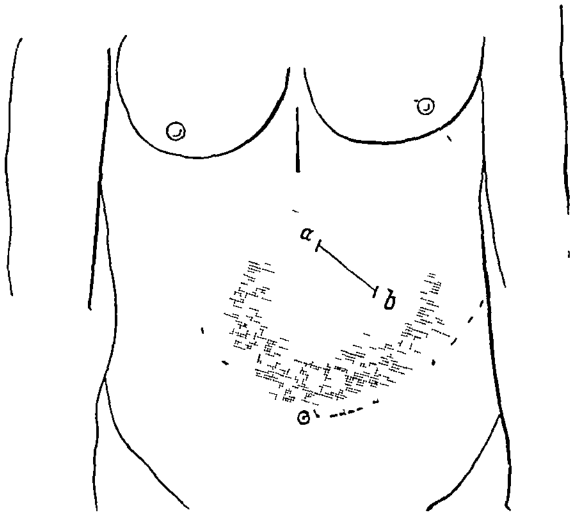
[1] Read in the Section on Surgery and Anatomy at the Thirty Sixth Annual Meeting of the American Medical Association

[2] This part of the valuable paper of Dr Senn should have appeared before the part which was published in the JOURNAL of Sept 26 as it constitutes the first part of the paper —ED

In the preparation of this paper it has been my intention to present to you a full report of a case of retention cyst of the pancreas which has recently come under my observation, and, at the same time, bring before you in a compact form the clinical history of similar cases, which will serve as a basis for some general remarks "on the surgical treatment of cysts of the pancreas"

CYST OF PANCREAS, LAPAROTOMY, RECOVERY

Volz, æt 19, laborer, German, was admitted to Milwaukee Hospital, Nov 28, 1884 He is small for his age and not robust but he claims that with one exception, he has never been sick, and that no hereditary tendency to disease exists in his family Five weeks ago, while enjoying perfect health, he was thrown from a wagon striking the ground on the left side of the abdomen, a heavy keg falling upon his back and increasing the force of the fall The pain felt immediately after the accident was confined to his back, at a point where he was struck by the keg, but it was not sufficient in intensity to prevent him from followlowing his occupation as a mason's apprentice In a few days, however, diarrhœa set in, which persisted for two weeks, greatly reducing his strength and weight If he had any fever during this time, it was not sufficiently severe to attract his attention His appetite was not impaired, and, although he vomited occasionally, neither vomiting nor the diarrhœa seemed to be aggravated by the time of eating or the kind or variety of food After two weeks he noticed a tumor in the left hypochondriac region which was round smooth, and painless The tumor increased rapidly in size, and soon gave rise to a sensation of fulness in the stomach, and later on to regurgitation and vomiting soon after meals Appetite slightly impaired At this time the patient was treated for a short time by my friend, Dr F H Day, of Wauwatosa, Wis, who resorted to symptomatic treatment, and, observing no improvement, referred him to me for diagnosis, and, in case it should be deemed advisable, for surgical treatment On his admission to the hospital he presented a considerable degree of emaciation, and complained principally of a sensation of fulness and weight in the region of the stomach, which was always aggravated after meals and only relieved by vomiting On inspection a tumor was found, which occupied nearly the whole epigastric and the entire left hypochondriac region, its most prominent point being to the left of the median line, and about three inches below the xyphoid cartilage Percussion revealed a line of dulness extending from the left nipple to within an inch above the umbilicus, posteriorly the dulness reached from the eighth to the lower margin of the twelfth ribs, in the epigastric region a limited area of tympanitic resonance was discovered along the costal arch of the lower ribs on the right side Palpation showed distinct fluctuation, the wave being conveyed from side to side across the whole area of dulness The tumor was round in contour and presented a smooth surface The measurements were as follows From the left nipple to the lowest point downwards twenty two centimetres, the transverse diameter twenty one centimetres, and the anterior circumference sixty-three centimetres The heart was pushed upwards so that the impulse of the apex could be distinctly felt in the fourth intercostal space The stomach was artificially distended with carbonic acid gas, when it was ascertained that it was pushed to the right and compressed by the tumor The liver appeared to be unaffected by the tumor, as on percussion it was found in its normal location and of natural size Both lumbar regions were tympanitic No evidences of ascites Firm pressure over any part of the tumor could be made without causing pain The peculiar fremitus often felt in cases of echinococcus cysts was absent No pulsations could be felt in the tumor, and no impulse was imparted to it by the underlying abdominal aorta The relative position of the tumor was changed during forcible inspiration and expiration For the purpose of ascertaining the nature of the contents of the tumor a hypodermic needle was thoroughly disinfected and introduced at a point where the tumor was most prominent, and, when in place, the distal end of the syringe moved upward and downward synchronously with the respiratory movements, showing that the adhesions with the parietal peritoneum, if any existed, were slight The fluid which was removed was somewhat viscid and slightly opalescent It was alkaline in reaction and contained a considerable proportion of albumin, as it coagulated on applying heat and nitric acid Under the microscope it showed only a few morphological elements, epithelial cells, a few leucocytes, granular matter, and no hooklets or cholesterine crystals



Space within dotted lines indicates area of dulness, *a–b*, line of incision

By exclusion the diagnosis was narrowed down to one of two things A sterile echinococcus cyst or cyst of the pancreas Against the former spoke the rapid growth of the tumor, its primary origin away from the liver, its favorite location, the presence of considerable amount of albumin, and the absence of hooklets, the presence of which are diagnostic of echinococcus cysts. In favor of a pancreatic cyst spoke the following: The history of traumatism in the region of the pancreas, the rapid growth of the tumor, and the early disturbance of digestion as manifested by diarrhœa and vomiting, presumably caused by the partial or complete retention of the pancreatic secretion. As the treatment remained the same in either case, it was decided to perform laparotomy and stitch the cyst walls to the peritoneal covering of the wound in the absence of adhesions, and to open and drain the cyst after adhesions had formed. This procedure was deemed preferable to the use of the trocar or aspirator as it would with certainty prevent extravasation of the cyst contents into the peritoneal cavity, and the drainage tube would guard against reaccumulation of the fluid, thus affording an opportunity of the cavity undergoing obliteration by adhesion of the inner surfaces of the cyst walls. The patient, being cognizant of the fact that no other form of treatment would promise any relief, readily assented to the operation proposed. Every precaution was observed to render the operation aseptic. The patient was given several baths, the parts were shaved and carefully disinfected with a five per cent. solution of carbolic acid, the instruments, sponges, and operating room being prepared the same as for an ovariotomy. Before ether was administered the stomach was emptied and washed out by means of an elastic stomach tube, with a view to prevent retching and vomiting during and after the operation. An incision five inches in length was made obliquely over the most prominent portion of the tumor, about three inches below and parallel with the left costal arch. A portion of the rectus abdominis muscle was divided. After dividing carefully all the tissues down to the peritoneum all hemorrhage was carefully and completely arrested.

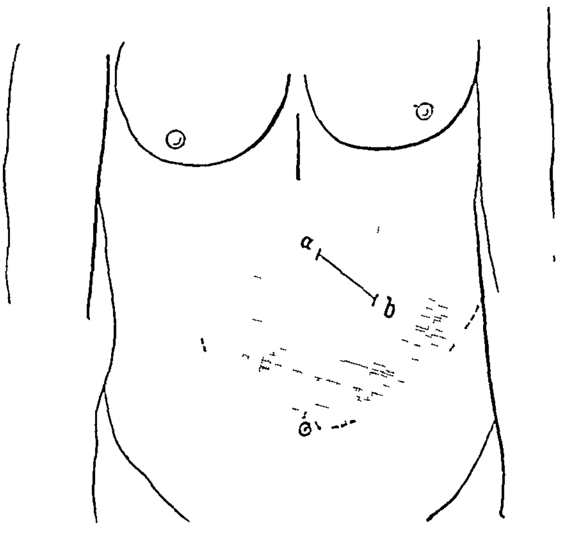
On opening the peritoneal cavity, the omentum was brought into view, the portion exposed containing an artery and a vein of considerable size. As these vessels were placed in a vertical direction, they crossed the wound, and it became necessary to apply a double ligature, the omentum being then incised between them to the extent of about three inches. The omentum was slightly adherent to the parietal peritoneum and the surface of the tumor. Through the omental incision the tumor could be distinctly seen and felt, presenting a smooth, whitish and glistening surface. As it had formed at least slight adhesions, it was decided to complete the operation. This plan was the more willingly adopted, as it was evident that the intra-cystic pressure was great and the cyst walls thin—which would render stitching them to the margins of the wound difficult and unsafe. The surface of the tumor was then seized with two dissecting forceps about an inch apart, and gentle traction made during incision and evacuation of the cyst, so as to prevent all risk of extravasation of fluid into the peritoneal cavity. The peritoneal covering was picked up and nipped, and a grooved director was inserted into the opening made, owing to the thinness of the walls of the sac it penetrated the interior, and fluid escaped along the groove with considerable force. The opening was enlarged with the knife, when the fluid gushed forwards in jets and was caught in basins. The contents were removed as completely as possible by making external pressure and by placing the patient on the side. As the cyst was emptied its walls were drawn forward into the wound and stitched to the peritoneum, which had been previously united with the skin. The interior of the cyst was explored by inserting the index-finger, which passed directly backwards toward the tail of the pancreas. The bottom of the cavity could, however, not be reached. The inner surface of the cyst was smooth. Two large drainage tubes were inserted to the bottom of the cyst, and the remaining portion of the wound united in a similar manner as after ovariotomy, only that the rectus muscle was sutured separately. The fluid removed was estimated at three quarts, and presented the same appearance as that which was removed by exploratory puncture. The wound was dressed with a large antiseptic compress, which was retained *in situ* with an elastic rubber bandage. This bandage made of rubber webbing not only retains the dressing perfectly, allowing at the same time the movements of the chest and abdomen, but has an additional advantage, inasmuch as it exerts equable pressure, an important element in the after-treatment of all abdominal operations.

The patient never vomited during or after the operation, and experienced immediate relief on removing the pressure which was caused by the tumor. The pulse never rose over 90°, and the highest temperature observed was 100° F., the day after the operation. The appetite increased, and no unpleasant subjective symptoms were complained of at any time. On the third day the dressing showed moisture on the external surface, and it was changed. The gauze was saturated with the secretions from the cyst. The wound looked healthy, but the surrounding skin, as far as the dressing had extended, was red and macerated, and the epidermis could be removed in large flakes, leaving beneath a raw surface. The changes in the skin presented the same appearances as described by Kulenkampff and Gussenbauer, and claimed by them to be due to the digestive power of the pancreatic juice. The excoriated surface was sprinkled with salicylic acid, and was again covered with a Lister dressing. On account of profuse secretion from the cyst the dressings were changed every few days, and at every change the skin was found excoriated as far as it had been moistened by the secretion. At the end of the first week the sutures were removed and no further dressings were applied, whereupon the skin healed without suppuration, and only a minimum amount of pus escaped through the fistulous opening with the secretion. The secretion became clearer after the operation, and continued to discharge in varying quantities for almost four weeks. One of the drainage tubes inserted at the time of the operation was removed at the first change of the dressing, and the second was gradually shortened, and entirely removed three weeks after the operation. At the end of the second week, the cyst was explored physiological secretion from the distal portion of the gland tissue, with perhaps accidental products, such as altered secretions, blood, and the products of inflammation

In the preparation of this paper it has been my intention to present to you a full report of a case of retention cyst of the pancreas which has recently come under my observation, and, at the same time, bring before you in a compact form the clinical history of similar cases, which will serve as a basis for some general remarks "on the surgical treatment of cysts of the pancreas"

CYST OF PANCREAS, LAPAROTOMY, RECOVERY

Volz, æt 19, laborer, German, was admitted to Milwaukee Hospital, Nov 28, 1884 He is small for his age and not robust, but he claims that with one exception, he has never been sick, and that no hereditary tendency to disease exists in his family Five weeks ago, while enjoying perfect health, he was thrown from a wagon striking the ground on the left side of the abdomen, a heavy keg falling upon his back and increasing the force of the fall The pain felt immediately after the accident was confined to his back, at a point where he was struck by the keg, but it was not sufficient in intensity to prevent him from followlowing his occupation as a mason's apprentice In a few days, however, diarrhœa set in, which persisted for two weeks, greatly reducing his strength and weight If he had any fever during this time, it was not sufficiently severe to attract his attention His appetite was not impaired, and, although he vomited occasionally, neither vomiting nor the diarrhœa seemed to be aggravated by the time of eating or the kind or variety of food After two weeks he noticed a tumor in the left hypochondriac region which was round smooth, and painless The tumor increased rapidly in size, and soon gave rise to a sensation of fulness in the stomach, and later on to regurgitation and vomiting soon after meals Appetite slightly impaired At this time the patient was treated for a short time by my friend, Dr F H Day, of Wauwatosa, Wis, who resorted to symptomatic treatment, and, observing no improvement, referred him to me for diagnosis, and, in case it should be deemed advisable, for surgical treatment On his admission to the hospital he presented a considerable degree of emaciation, and complained principally of a sensation of fulness and weight in the region of the stomach, which was always aggravated after meals and only relieved by vomiting On inspection a tumor was found, which occupied nearly the whole epigastric and the entire left hypochondriac region, its most prominent point being to the left of the median line, and about three inches below the xyphoid cartilage Percussion revealed a line of dulness extending from the left nipple to within an inch above the umbilicus, posteriorly the dulness reached from the eighth to the lower margin of the twelfth ribs, in the epigastric region a limited area of tympanitic resonance was discovered along the costal arch of the lower ribs on the right side Palpation showed distinct fluctuation, the wave being conveyed from side to side across the whole area of dulness The tumor was round in contour and presented a smooth surface The measurements were as follows From the left nipple to the lowest point downwards twenty-two centimetres, the transverse diameter twenty one centimetres, and the anterior circumference sixty-three centimetres The heart was pushed upwards so that the impulse of the apex could be distinctly felt in the fourth intercostal space The stomach was artificially distended with carbonic acid gas, when it was ascertained that it was pushed to the right and compressed by the tumor The liver appeared to be unaffected by the tumor, as on percussion it was found in its normal location and of natural size Both lumbar regions were tympanitic No evidences of ascites Firm pressure over any part of the tumor could be made without causing pain The peculiar fremitus often felt in cases of echinococcus cysts was absent No pulsations could be felt in the tumor, and no impulse was imparted to it by the underlying abdominal aorta. The relative position of the tumor was changed during forcible inspiration and expiration For the purpose of ascertaining the nature of the contents of the tumor a hypodermic needle was thoroughly disinfected and introduced at a point where the tumor was most prominent, and, when in place, the distal end of the syringe moved upward and downward synchronously with the respiratory movements, showing that the adhesions with the parietal peritoneum, if any existed, were slight The fluid which was removed was somewhat viscid and slightly opalescent It was alkaline in reaction and contained a considerable proportion of albumin, as it coagulated on applying heat and nitric acid Under the microscope it showed only a few morphological elements, epithelial cells, a few leucocytes, granular matter, and no hooklets or cholesterine crystals



Space within dotted lines indicates area of dulness, *a-b*, line of incision

By exclusion the diagnosis was narrowed down to one of two things A sterile echinococcus cyst or cyst of the pancreas Against the former spoke the rapid growth of the tumor, its primary origin away from the liver, its favorite location, the presence of considerable amount of albumin, and the absence of hooklets, the presence of which are diagnostic of echinococcus cysts. In favor of a pancreatic cyst spoke the following: The history of traumatism in the region of the pancreas, the rapid growth of the tumor, and the early disturbance of digestion as manifested by diarrhœa and vomiting, presumably caused by the partial or complete retention of the pancreatic secretion. As the treatment remained the same in either case, it was decided to perform laparotomy and stitch the cyst walls to the peritoneal covering of the wound in the absence of adhesions, and to open and drain the cyst after adhesions had formed. This procedure was deemed preferable to the use of the trocar or aspirator, as it would with certainty prevent extravasation of the cyst contents into the peritoneal cavity, and the drainage tube would guard against reaccumulation of the fluid, thus affording an opportunity of the cavity undergoing obliteration by adhesion of the inner surfaces of the cyst walls. The patient, being cognizant of the fact that no other form of treatment would promise any relief, readily assented to the operation proposed. Every precaution was observed to render the operation aseptic. The patient was given several baths, the parts were shaved and carefully disinfected with a five per cent. solution of carbolic acid, the instruments, sponges, and operating room being prepared the same as for an ovariotomy. Before ether was administered the stomach was emptied and washed out by means of an elastic stomach tube, with a view to prevent retching and vomiting during and after the operation. An incision five inches in length was made obliquely over the most prominent portion of the tumor, about three inches below and parallel with the left costal arch. A portion of the rectus abdominis muscle was divided. After dividing carefully all the tissues down to the peritoneum all hemorrhage was carefully and completely arrested.

On opening the peritoneal cavity, the omentum was brought into view, the portion exposed containing an artery and a vein of considerable size. As these vessels were placed in a vertical direction, they crossed the wound, and it became necessary to apply a double ligature, the omentum being then incised between them to the extent of about three inches. The omentum was slightly adherent to the parietal peritoneum and the surface of the tumor. Through the omental incision the tumor could be distinctly seen and felt, presenting a smooth, whitish and glistening surface. As it had formed at least slight adhesions, it was decided to complete the operation. This plan was the more willingly adopted, as it was evident that the intra-cystic pressure was great and the cyst walls thin—which would render stitching them to the margins of the wound difficult and unsafe. The surface of the tumor was then seized with two dissecting forceps about an inch apart, and gentle traction made during incision and evacuation of the cyst, so as to prevent all risk of extravasation of fluid into the peritoneal cavity. The peritoneal covering was picked up and nipped, and a grooved director was inserted into the opening made, owing to the thinness of the walls of the sac it penetrated [illegible] the interior, and fluid escaped along the [illegible] considerable force. The opening [illegible] the knife, when the fluid gushed forward in [illegible] was caught in basins. The contents were [illegible] as completely as possible by making external [illegible] and by placing the patient on the side. [illegible] was emptied its walls were drawn forward into the wound and stitched to the peritoneum, which had been previously united with the skin. The interior of the cyst was explored by inserting the index finger, which passed directly backward toward the [illegible] the pancreas. The bottom of the cavity could, however, not be reached. The inner surface of the cyst was smooth. Two large drainage tubes were inserted to the bottom of the cyst, and the remaining portion of the wound united in a similar manner as after ovariotomy, only that the rectus muscle was united separately. The fluid removed was [illegible] three quarts, and presented the same appearance as that which was removed by exploratory puncture. The wound was dressed with a large antiseptic compress, which was retained *in situ* with an elastic rubber bandage. This bandage made of rubber webbing not only retains the dressing perfectly, allowing at the same time the movements of the chest and abdomen, but has an additional advantage, inasmuch as it exerts equable pressure, an important element in the after treatment of all abdominal operations.

The patient never vomited during or after the operation, and experienced immediate relief on removal of the pressure which was caused by the tumor. The pulse never rose over 90°, and the highest temperature observed was 100° F., the day after the operation. The appetite increased, and no unpleasant subjective symptoms were complained of at any time. On the third day the dressing showed moisture on the external surface, and it was changed. The gauze was saturated with the secretions from the cyst. The wound looked healthy, but the surrounding skin, as far as the dressing had extended, was red and macerated, and the epidermis could be removed in large flakes, leaving beneath a raw surface. The changes in the skin presented the same appearances as described by Kulenkampff and Gussenbauer and claimed by them to be due to the digestive power of the pancreatic juice. The excoriated surface was sprinkled with salicylic acid, and was again covered with a Lister dressing. On account of profuse secretion from the cyst the dressings were changed every few days, and at every change the skin was found excoriated as far as it had been moistened by the secretion. At the end of the first week the sutures were removed and no further dressings were applied, whereupon the skin healed without suppuration, and only a minimum amount of pus escaped through the fistulous opening with the secretion. The secretion became clearer after the operation, and continued to discharge in varying quantities for almost four weeks. One of the drainage tubes inserted at the time of the operation was removed at the first change of the dressing, and the second was gradually shortened, and entirely removed three weeks after the operation. At the end of the second week, the cyst was ex with a disinfected probe which passed to a depth of eight inches in the direction of the tail of the pancreas. The fistulous tract soon became live with granulations, and grew smaller in length and diameter so that at the end of eight weeks it was very narrow, so as to admit only a small probe, which could be passed only to a depth of four inches. The skin around the fistulous opening has been drawn inward, forming a deep funnel shaped depression.

Jan. 22, 1885. Patient discharged cured. Fistula completely closed. Retraction of cicatrix very marked. General health good, digestion perfect. No swelling can be felt in the region of the pancreas.

Remarks.—The clinical history is somewhat similar to analogous cases which will be referred to in this paper. It was my intention to collect some of the secretion for the purpose of ascertaining its digestive properties on different articles of food, but before this could be done the amount secreted daily became so small that it was impossible to obtain corroborative diagnostic evidence from this source. The anatomical location of the tumor, its relations to the surrounding organs, its rapid growth, and the character of its contents, can leave no possible doubt that we had to deal with a genuine retention cyst of the pancreas. The question naturally arises, what was the cause of the obstruction? The history of the case points clearly to traumatism as the exciting cause. The patient had been in good health until he received the injury, and since that time he had not been well, although he continued at his work for some time afterward. Whether the diarrhœa from which he suffered for the first two weeks resulted from injury to the pancreas, we are unable to prove, but it may be possible that a retention of the pancreatic secretion occurred after the traumatism, that diarrhœa may have been produced by the absence of the fluid in the intestinal tract. As the patient at this time was not under medical observation, the character of the stools was not ascertained. As the injury was inflicted in the region of the pancreas, it is reasonable to assume that the pancreatic duct and the parenchyma of the gland were lacerated at a certain point, producing obstruction to the outflow of the secretion from the distal portion of the organ, the nature of the injury and the manner of obstruction being the same as in cases of rupture of the male urethra. It would be difficult to imagine that the common duct could be distended by the accumulation of the retained fluid to such an enormous extent in such a remarkably short time hence we are forced to conclude that laceration of the duct took place, and that the pancreatic fluid infiltrated the gland, and the cyst formed at the expense of its parenchyma and by distension of the capsule of the organ. The cyst wall anteriorly was so thin that after cutting the peritoneal covering the grooved director penetrated directly into the interior of the cyst without using more than the slightest force, which would show that nothing but a little connective tissue was interposed between the peritoneum and the cyst-contents. The rapid growth of the cyst would indicate that the obstruction occurred at some distance from the caudal extremity of the gland, thus making a considerable portion of the secreting tissue contributory to the formation of the cyst. The early cessation of the discharge of the secretion through the abnormal outlet would tend to prove either that after the removal of the intra cystic pressure the duct again became permeable, and thus furnished a free passage to the secretions into the intestinal canal through the natural channel, or that the gland tissue in the vicinity and distal to the cyst had been destroyed. In regard to the operation, it is necessary to say that I deviated from the usual plan in not making the incision through the linea alba. The incision was made over the most prominent part of the tumor, for the following substantial reasons:

1. If adhesions had formed, they would naturally begin at a point where the tumor impinged most firmly against the anterior abdominal wall.

2. Incision over the most prominent portion of the cyst would afford the best point for effective drainage.

The band of connective tissue which would result from atrophy and obliteration of the cyst would form a permanent bridge between the cicatrix of the abdominal wound and the gland, consequently it is advisable to establish this necessary evil where it will do the least harm by interfering with the functions of important organs.

Aspiration of the cyst was not practised, because the exploratory puncture had demonstrated that firm adhesions had not taken place, and in the absence of these it was feared that some of the cyst contents might escape into the peritoneal cavity and produce peritonitis. The maceration of the skin was the result of the digestive action of the pancreatic juice, and this phenomenon furnished strongly corroborative diagnostic evidence in this as well as in previous cases.

The literature on the subject of cysts of the pancreas is extremely meagre, and after diligent search I have only been able to find an account of the following cases, of which I will give a brief report.

Case II.—Kulenkampff's case.[1] E., male, æt. 39, laborer, otherwise healthy, received a number of heavy blows on the abdomen on March 22, 1881. The blows were received the patient believes, about the umbilicus and in the direction from below upwards. When examined a few hours later, no external signs of contusion could be seen, although he complained of intense pain in the upper abdominal and right hypochondriac regions. Great tenderness on pressure. On the right side posteriorly, above the diaphragm, dulness over an area three inches in height. As the patient complained of lancinating pains in the same locality, and respiration was difficult, the attending physician was induced to diagnosticate traumatic pleurisy. In a few days the febrile symptoms and pain subsided, and in three weeks the patient seemed to be convalescent. Occasional attacks of pain in the hepatic and epigastric regions remained, and also tenderness on pressure. Physical examination at this time yielded only a negative result. Toward the latter part of May, a swelling made its appearance which seemed to take its origin from the liver. This swelling increased in size until September, when the following conditions were noted. In the epigastric region a round, dense, non-fluctuating tumor can be felt, of the size of a double fist. The larger part of the swelling is located on the right side of the mesial line. Its lower margin extends to within one and a half inches of the umbilicus. Percussion dulness continues with liver, giving the impression as though the tumor sprang from the left lobe of this organ. Tumor ascends and descends during the respiratory movements. Pulsation in an anterior direction. No bruit. Palpation unsatisfactory on account of the contraction of the recti muscles. Appetite and digestion not impaired. Temperature normal, no icterus. Examination of urine and stools furnished no clue to the diagnosis.

---

[1] Ein Fall von Pankreasfistel. Berliner Klinische Wochenschrift, Feb. 13, 1882.

As from the existing signs and symptoms no diagnosis could be made, it was decided to render the tumor more accessible by dividing the tissues down to the peritoneum. On September 14, an incision was made through the linea alba down to the peritoneum. To the touch the tumor, which moved freely, imparted the sensation of a tense, nodular liver, as in cirrhosis of this organ. The trocar of an aspirator was now introduced towards the right of the mesial line, and after penetrating through dense tissue the distance of a centimetre, a cavity was reached, from which about a quart of clear fluid was evacuated. The peritoneal cavity was not opened and the wound was packed with gauze, over which an antiseptic dressing was applied. The diagnosis of an echinococcus cyst, which had already been entertained, was strengthened by this examination. The fluid removed coagulated spontaneously on standing for some time, also on applying the tests for albumen. It contained no succinic acid. In the deposit, which was very scanty, blood and lymph corpuscles were discovered. On September 20 the peritoneum was incised and stitched to the skin. The finger which was introduced into the peritoneal cavity came in contact with a freely movable and nodular tumor which was supposed to be attached to the liver. Its size was fully as large as before the last operation. The incision was again filled with gauze, and four days later, adhesions having taken place, the tumor was incised, and about a quart of the same kind of fluid escaped through the wound. On digital exploration it was ascertained that the inner surface of the cyst was lined with mucous membrane, which was studded with polypoid growths. A large drainage tube was inserted and a Lister dressing applied. During the next two weeks there was no febrile reaction, the tumor disappeared, and large quantities of the same clear fluid escaped through the fistulous opening. On October 10 the secretion had diminished greatly, and the tract had been reduced to the size of an ordinary lead pencil. Injections of iodine were made with a view to hasten the obliteration of the cyst, but this procedure excited pain, emesis, and renewed secretion of fluid, of which from one fourth to three fourths of a quart were evacuated during twenty four hours. Cauterisation with nitrate of silver produced no better result. The skin remained in a state of maceration wherever it was moistened by the secretion, in spite of often repeated changes of dressings. This peculiar condition of the skin first aroused the suspicion in Kulenkampff's mind that he was dealing with a fistula of the pancreas. He therefore collected some of the fluid and handed it to a chemist for analysis. The fluid was almost clear, colorless, frothing upon being shaken, slightly alkaline in reaction. It contained but few inorganic salts, and coagulated on applying heat and nitric acid. It contained no succinic acid. Experiments were made to ascertain its effects on coagulated albumen, neutral fats, and starch, the substances being kept at a temperature of 20–25° C. Special care was taken to preserve its alkaline reaction. A fresh paste made of four grms. wheaten flour and fifty grms. water was rendered very thin by the fluid. Fehling's solution showed the presence of 0.96 grms. glucose. Coagulated albumen of an egg, kept in a one fourth per cent. solution of salicylic acid it showed no appreciable change. 0.195 grms. leucin and tyrosin were obtained from it. Three decigrammes freshly prepared lard were melted and subjected to the action of the fluid. A perfect emulsion was formed which had not given off free fat after the lapse of twelve hours. The chemical examination showed in 100 parts: 3.65 parts of albumen which coagulated on addition of alcohol and again was soluble in water, 8.57 parts of organic matter of various kinds, 8.09 parts of inorganic substances. Kulenkampff is inclined to the belief that the traumatism caused some parts of the pancreas to become inflamed, thus causing a constriction or obliteration in the duct of Wirsung or some of its branches. As long as the fistula continued to discharge the patient became emaciated, but there was no disturbance of digestion. The urine at no time contained sugar. It was noticed that the secretion was more profuse during the afternoon. The patient recovered completely after the closure of the fistula.

Remarks.—This case illustrates well the difficulties which are met with in diagnosticating affections of the pancreas. Repeated examinations carefully made, direct exploration of the tumor at the time of the second operation, failed to throw sufficient light upon the case to enable the attending surgeon to make a positive diagnosis. The peculiar effect of the pancreatic juice upon the skin turned the attention of the operator in the right direction, and the chemical examination of the fluid, and the physiological tests to which it was subjected, finally resulted in a positive and correct conclusion.

In the next case, the operator asserts to have made a *probable* diagnosis before the operation.

CASE III.—Gussenbauer's Case.[1] Male patient, musician, æt. 40, who has always been in good health and not affected by any hereditary taint, was taken suddenly ill after having, on a festive occasion, indulged too freely in the pleasures of the table. He complained of nausea, acute pain in the stomach, and, after having taken more alcoholic stimulants to relieve the symptoms, he vomited repeatedly. In a few days he recovered from this attack and remained well for two weeks, when he discovered a swelling in the region of the stomach, which increased rapidly in size, so that after two weeks it caused a visible bulging in the epigastric region The appetite now became impaired, the patient complaining of a sensation of fulness after meals, accompanied by frequent eructations During the next month he vomited after meals and became greatly emaciated The treatment resorted to had no effect in arresting the rapid growth of the tumor, which soon became the source of radiating pains through the lumbar and sacral regions When he was first seen by Gussenbauer, Dec 21, 1882, about ten weeks after the illness had commenced, he was emaciated, skin pale and of a dirty grayish brown color Respiration thoracic, pulse full and regular Percussion showed slight dulness in the right side (sternal region) from the third rib downward, complete dulness from the fifth rib In the mammary line slight dulness at the upper margin of the fourth, complete dulness from fifth rib downward, in the axillary region, slight dulness over seventh, and complete dulness from eighth rib On the left side slight dulness began at the upper margin of the third and extended to the eighth in the axillary line Auscultation showed vesicular breathing on both sides of the chest On examination of the abdomen, a prominent swelling attracted the attention, which extended over the right and left supraumbilical regions, and from the left costal arch into the right hypochondriac region In the middle line the tumor measured 18½ centimetres from the xiphoid cartilage to two inches below the umbilicus, from the left costal cartilage to the right hypochondrium, 22 centimetres Over the anterior surface of the tumor, as far as it was not covered by the left lobe of the liver, percussion elicited clear, full tympanitic resonance If the abdominal wall was pressed against the tumor the percussion became dull On inflating the stomach it could be seen rising above the tumor, its great curvature was easily mapped out by inspection and percussion The transverse colon seemed to crop anteriorly over the middle of the tumor It was movable only to a slight degree, and seemed to follow the respiratory movements Tenderness on deep and firm pressure No ascites Bowels somewhat constipated, stools natural, with no admixture of fat No abnormal constituents in urine The rapid growth of the tumor and its location in the bursa omentalis behind the stomach and transverse colon, led Gussenbauer to make a probable diagnosis of a cyst of the pancreas or the suprarenal capsule

---

[1] Zur operativen Behandlung der Pankreascysten. Archiv f. Klin. Chir., vol. xxix, p. 355.

As the patient was in a critical condition, and all other measures had failed to afford relief, the only hope centred on a surgical operation, which was performed December 22, 1882 An incision was made in the linea alba about five inches in length, and the peritoneal cavity opened to the same extent The stomach and great omentum were seen to cover the anterior surface of the tumor The omentum was detached from the great curvature of the stomach for about three inches, several arteries were compressed temporarily and subsequently ligated Through the omental incision the tumor came into view, covered by peritoneum Fluctuation was now distinctly felt in the tumor The upper and lower portions of the incision were closed, the parietal peritoneum was sutured to the external skin, and the anterior surface of the cyst to the margins of the wound Through one of the punctures in the cyst wall a dark brown fluid escaped, and, as the suture was tied, the opening enlarged and the fluid escaped in a jet A part of the contents of the cyst were evacuated by means of a trocar, in order to diminish the intracystic pressure and allow of a more perfect fixation of the cyst walls to the wound When this had been done an incision three centimetres in length was made into the tumor, from which altogether 1,900 cubic centimetres of fluid escaped Exploration of the interior of the cyst with the finger and sound indicated no traces of a solid tumor, but a smooth membrane lining the inner walls The lower portion of the cyst walls were covered with black masses, which were easily detached and removed without giving rise to bleeding The cavity was washed out with a solution of thymol, a large drainage tube introduced, and iodoform dressing applied The fluid was of a grayish black color, and contained in suspension large quantities of masses of pigment a few red corpuscles, in a state of degeneration, representing all forms of retrograde changes The specific gravity of the fluid was 1 610 and its reaction alkaline The dark color was due to the pigment, which was found to be soluble in concentrated caustic soda and in acid alcohol Spectrum analysis showed the presence of hæmatin, but not not of hæmoglobin Further tests showed that it contained albumen, a body resembling mucin, and a material soluble in alcohol, but no bile pigment, metalbumen, peptones, or sugar When the dressings were changed on the third day, the skin appeared to be macerated, which necessitated in the future a daily change of dressing The patient was relieved promptly by the operation, and the wound healed without suppuration After a few days the discharge from the fistula became clear, and on examination it was found to contain leucin and tyrosin Its reaction was alkaline, it digested albumen, and converted starch into sugar Patient made a good recovery and was dismissed three weeks after the operation with a small fistulous opening, which continued to discharge a small amount of pancreatic fluid During the time he was kept under observation the fistula closed several times, and each time he suffered from a rise in temperature, which continued until the fistula opened and discharged again

Remarks —The origin of the cyst in this case was believed to be a hæmatoma of the pancreas This assumption, however, lacks demonstation, and it is just as logical to assume that the cyst originated in the usual way from an obstruction, and that the blood in the cyst contents was an accidental product The obstinacy of the fistula to close permanently would lead to the suspicion that the obstruction was of a permanent nature, either by the impaction of a calculus in the common duct, or obliteration of this channel by cicatricial contraction, the result of chronic inflammation

The next three cases of cysts of the pancreas were mistaken for ovarian cysts, and the operation of ovariotomy was performed, when the nature of the cysts was discovered, in one instance during the operation, and in the remaining two at the necropsy.

CASE IV.—Bozeman's Case.[1] The patient was a lady 41 years of age, and perfectly healthy up to seven years ago, with the exception of occasional attacks of indigestion. Seven years ago she experienced for the first time pain in the right iliac region, extending down the right thigh and at times attended with numbness. Five years ago the abdomen began to enlarge upon the left side, with a corresponding flatness upon the right side. The swelling increased slowly up to six weeks ago, when it suddenly began to grow rapidly. Finally, it filled symmetrically the entire abdominal cavity. At the same time the patient became emaciated and weak. Dr. T. G. Richardson, of New Orleans, who examined her at this time, diagnosticated the case as one of cystic tumor of one of the ovaries, and advised the patient to consult Dr. Bozeman. The patient entered the Woman's Hospital in New York, Nov. 19, 1881, where she came under Dr. Bozeman's care. The previous diagnosis was confirmed by Drs. Bozeman, Thomas, and Emmet. December 2 an operation was performed for the removal of the supposed ovarian cyst. Full antiseptic precautions were observed before and during the operation. When the tumor was reached through an incision below the umbilicus, its appearance was identical with that of an ordinary ovarian cyst, only that its color was of a more deep pearly hue. With a trocar two and one half gallons of fluid were evacuated. After the fluid had nearly escaped about two-thirds of the cyst was drawn through the incision, and then for the first time the operators' suspicions were aroused that it was not ovarian. An exploration of the abdominal cavity revealed the presence of both ovaries in a healthy condition. The origin of the cyst was traced to the upper part of the abdomen. The incision was enlarged upwards two inches above the umbilicus. Further examination showed that the stomach had been crowded against the diaphragm by the tumor, while the intestines were displaced in the opposite direction. The cyst was found adherent to the transverse mesocolon. In tracing the cyst walls still further the pancreas was reached, where a large vein was discovered which was very tortuous and subsequently identified as the splenic. As this vein was in close relationship to the pedicle, its presence rendered the operation more difficult. The tail of the pancreas lay in contact with the side of the cyst wall and firmly adherent to it to the extent of two inches. When this portion was separated the organ spread out and presented its natural appearance. The cyst sprang from the pancreas at the junction of the outer with the inner two thirds, the pedicle being three fourths of an inch in length and about the same in thickness. The veins of the pedicle were very large. The pedicle was transfixed and secured in a double ligature and cut off. On examination of the cyst it was discovered that a portion of it remained attached to the pedicle, this was subsequently completely removed by a careful dissection. The artery which supplied the cyst was as large as the brachial, and appeared to be a branch of the splenic. Very little bleeding attended the operation, and no ligatures were required. The fluid removed was of a light brownish color, acid reaction, and a specific gravity of 1.020. Tumor and contents weighed twenty and one half pounds. Quinine, stimulants and opiates were given after the operation. The highest temperature, 101.5° F., was noted on the third day, the pulse never rose above 98. After omitting the quinine, the temperature rose to 102.8° F. on the eighth day, when quinine, in ten grain doses every six hours, reduced the temperature to nearly normal in the course of thirty-six hours. From this time the improvement continued uninterruptedly to the time when the patient was discharged cured on the thirty-eighth day.

CASE V.—K. von Rokitansky's case reported by Zukowski.[1] The patient was a female 36 years of age who had suffered with symptoms indicative of ovarian cyst for nearly three years. The tumor was first noticed in the upper portion of the abdominal cavity. Laparotomy was performed Feb. 27, 1881. The usual incision was made in the linea alba, and the supposed ovarian cyst was found behind the great omentum, stomach, and transverse colon. The cyst wall adhered firmly to the surrounding organs, and on attempting to separate the adhesions between it and the transverse colon, a rent was made in the bowel two ctms. in length. The tear was at once closed with five sutures. The adhesions were so numerous, firm and vascular, that complete extirpation of the entire cyst was found impossible, consequently the detached portion of the cyst was crushed off with an ecraseur, and the stump fastened in the abdominal incision and the wound drained and closed. During the operation the cyst ruptured and a portion of its contents escaped into the peritoneal cavity. Fifty ligatures were applied in preventing and securing hemorrhage. After the operation the patient collapsed and came nearly dying on the table. She rallied from the immediate effects of the operation but died on the tenth day from suppurative peritonitis. Sometime before death, fecal matter escaped through the opening left by the drainage tube. At the autopsy it was shown that the remaining portions of the cyst were connected with the pancreas. Of this organ only the head was found in a normal condition, of the body only a few remnants remained, while the tail had disappeared completely.

CASE VI.—Luecke's Case, reported by Luecke and Klebs. A female, 43 years old, with the exception of bronchial catarrh had always been in good health. In July, 1866, at the time when menstruation should have appeared, she experienced a severe pain in the right hypochondriac region, where a swelling soon afterward made its appearance. The tumor gradually increased in size and soon occupied the entire abdominal cavity. During the menstrual period the swelling always became tender and painful. She was admitted to the hospital under Luecke's care,

---

[1] Removal of a cyst of the pancreas weighing 20½ pounds. Medical Record, Jan. 14, 1882.

[1] Grosse Cyste des Pankreas. Laparotomie. Tod. Wiener med. Presse, 1881, Nov. 15.

Beitrag zur Ovariotomie und zur Kenntniss der Abdominalgeschwuelste. Virchow's Archiv, vol. xli, p. 9.

Nov 29, of the same year, and then appeared pale and emaciated She complained of difficulty in breathing, all other functions were unimpaired The abdomen was symmetrically enlarged, its greatest circumference measured ninety five ctms The distance from the xiphoid cartilage to the umbilicus measured fourteen ctm , from the umbilicus to the pubes eighteen ctm Percussion revealed dulness over middle of the abdomen as far as half way between the umbilicus and xiphoid cartilage Lumbar regions tympanitic An examination, per vaginam and rectum showed that the uterus was displaced backward and toward the left side, upon its posterior surface a hard nodule could be felt Tumor appeared to have no connection with the uterus On Dec 1, menstruation set in with severe pain in the lower part of the abdomen No change in temperature or pulse rate Dec 6, the tumor was tapped at a point to the left of the median line, and twenty three pints of a turbid yellowish fluid were evacuated After tapping, a movable tumor was felt in the left side of the abdominal cavity, which was regarded as the collapsed sac of the ovarian cyst The fluid removed contained only a small amount of albumen The microscopic examination showed the presence of large pale cells, some of them filled with granular matter The condition of the patient was considerably improved by the tapping Four days after the operation the cyst was again filling rapidly, and on percussion it seemed to occupy the middle of the abdomen, its upper margin being somewhat below the umbilicus Dec 22, the labia majora and lower extremities were œdematous and the tumor was as large as before tapping Jan 1, 1867, she suffered from a severe attack of dyspnœa during the night, at this time the area of dulness over the tumor had extended to within two inches of the ensiform cartilage, the umbilical depression was effaced, and the lumbar regions were resonant on percussion On the following day the patient was removed to a private dwelling where abdominal section was performed After cutting through the skin and muscular layers in the linea alba, a thin smooth and very vascular membrane protruded through the wonnd Through a small puncture which was made into this membrane, a milkwhite fluid escaped A trocar was pushed through the membrane and a large amount of the same fluid poured out On making traction upon the membrane the umbilical depression was restored This circumstance, as well as the difficulty which was experienced in an attempt to separate the membrane and the prolapse of the small intestine which now occurred, combined to prove that the supposed cyst wall was the parietal peritoneum The abdominal cavity was opened and on exploration both ovaries were found normal in structure and position The abdominal wound was closed with two rows of sutures The fluid removed measured 27½ pints and resembled milk in its gross appearance, it coagulated spontaneously and contained in suspension the same morphological elements as the fluid removed by tapping, with the exception that in addition numerous fat globules were found The patient died Jan 5, the symptoms during her illness indicating diffuse peritonitis The post mortem examination was made by Professor Klebs Intestines crowded upwards, the transverse colon studded with numerous white or myxomatous nodules, very much contracted, forming a curve with the concavity directed upward, being separated from the stomach by a cyst with thin walls The anterior wall of this cyst was made up of the lesser omentum On opening the cyst, a large quantity of fluid escaped resembling in every particular the fluid which had been removed from the peritoneal cavity The floor of the cyst was covered with nodules composed of grayish jelly-like masses The principal portion of this material belonged to the pancreas This organ had been transformed into a mass four inches in width and twelve inches in length, and was composed almost entirely of gelatinous nodules, in the centre of the mass the common duct could be identified The mesentery contained numerous miliary nodules, and in Douglas's pouch large nodular masses were found Left lateral ligament also contained gelatinous nodules Remaining abdominal organs healthy The microscopical appearances were characteristic of colloid cancer The disease had evidently its primary origin in the pancreas

Remarks —Although this case does not properly come within the scope of this paper it presents, however, a few important and interesting points which have a direct bearing on the subject before us The disease was malignant from the beginning, and originated primarily either in the capsule or the parenchyma of the pancreas, and extended from there by continuity to the serous lining of the abdominal viscera A cyst formed in the bursa omentalis anteriorly to the pancreas which had no direct communication with the peritoneal cavity The walls of this cyst were made up of adjacent organs The cyst, occupying the same location as true retention cysts of the pancreas, gave rise to the same signs and symptoms After the removal of the ascitic fluid, the hydropic bursa omentalis remained and was displaced toward the left side, and thus simulated to perfection on a movable cyst Refilling of the cyst took place more rapidly than the accumulation of fluid in the peritoneal cavity In a diagnostic point of view, the severity of the pain and presence of nodules which were felt through the vagina and rectum should have aroused suspicion in regard to the benign character of the tumor, as their presence invariably indicate the existence of malignant disease

In the following case the cyst of the pancreas was mistaken for an abscess

Case VII —Reported by Thiersch[1] A case of pancreatic fistula was admitted to the hospital with the following history The patient, a stone-cutter, 38 years of age, in previous good health, was taken suddenly ill while at work He complained of nausea and a sensation of great lassitude A tumor developed rapidly in the region of the stomach The rapidity with which the tumor appeared and the distinct fluctuation which could be felt, led the attending physician to diagnosticate an abscess in the anterior abdominal wall An incision was made to evacuate the contents af the abscess, but, in place of finding pus, the operator, after cutting through the peritoneum, discovered a cystic tumor of the abdominal cavity. The wound was packed and incision of the cyst postponed until adhesions should form between the anterior surfaces of the tumor and the margins of the wound. Two and a half weeks after the incision was made, the cyst was laid open, and about three quarts of a chocolate colored fluid escaped. As the fistula which formed manifested no tendency to close, the patient sought relief in the hospital. The fistula secreted a moderate amount of a thin serous fluid. The chemical examination for pancreatic juice yielded a negative result. Thiersch dilated the fistulous tract, and ascertained by further examination that the tract was outside the parietal peritoneum and reached so far as the spinal column and the tail of the pancreas. Thiersch was of the opinion that the cyst originated from a hæmatoma of the pancreas and considered this the first case of recovery after such a lesion.

---

[1] Berliner Klin Wochenschrift 1881

Remarks.—If the statement is correct that at the first operation the peritoneal cavity was opened and the wound packed, and that the cyst was opened after firm adhesions had taken place, it is difficult to understand how the fistulous tract could be located outside of the peritoneal cavity, as Thiersch asserts. The location and rapid growth of the tumor, as well as the conditions found at the first operation, would certainly indicate the presence of a true retention cyst complicated by hæmorrhage from the beginning or during the growth of the cyst. Although it is stated that the chemical examination of the fluid secreted yielded only a negative result, positive proof is lacking that it was not pancreatic juice, and we are entitled to the belief that the case was one of cyst of the pancreas, and the fistula a true pancreatic fistula.

In all cases reported so far, with the exception of the fatal cases, it had been impossible to learn the exact seat and nature of the cause of obstruction. For the purpose of throwing some light on this part of our subject, I will refer briefly to a few post mortem specimens which illustrate at least one variety of obstruction.

Prof. von Recklinghausen[1] gives the result of post mortem examination in two cases of cystic disease of the pancreas in patients who had died of diabetes mellitus. The first case was a male, 40 years of age, who had suffered from diabetes mellitus for four years. The specific gravity of the urine was 1.030, and it contained from four to five per cent. of sugar. At the necropsy it was discovered that the pyloric end of the stomach was pushed forward by a large tumor, the lower portion of which was hidden behind the transverse mesocolon, which had been the seat of inflammation and cicatrization. The stomach was connected with the tumor by slight adhesions, but aside of a few hæmorrhagic erosions beneath the mucous membrane, it showed no further signs of disease. Duodenum normal, ductus choledochus permeable. Portal vein passed along the lower right margin of the tumor, where it was somewhat flattened and compressed. Splenic vein slightly dilated. Between the right border of the tumor and the duodenum the head of the pancreas could be seen, presenting a healthy appearance. The common pancreatic duct was pervious at its duodenal extremity and had not suffered any alterations in the head of the gland, but in the body it approached the tumor directly, and was no longer surrounded by gland tissue, but by dense connective tissue which connected the head of the pancreas with the tumor. At the point where the duct terminated in the tumor its lumen was completely filled with a calculous concretion the size of a pea. The tumor was as large as a child's head, nearly round, and consisted of a dense sac which contained a thin, yellowish fluid. In the fluid cholesterine and fat crystals could be seen with the naked eye. On standing, it deposited a white sediment which, under the microscope, showed granular cells and *debris* of cells. The cyst wall was of uniform thickness, measuring about three mm. The sections appeared somewhat gray, at some points interspersed with a slate color. The inner surface of the cyst on the whole was smooth, with isolated thickened patches resembling the sclerotic patches in atheromatous arteries. At some points the inner surface is somewhat elevated by thick membranes of a pearly, glistening appearance and gray color, which could be easily detached. The surface underneath these membranous patches was somewhat rough. Upon the inner and posterior wall of the cyst a groove could be distinctly traced from left to right which, at its left extremity, terminated in a canal, the size of a crow's quill, perforating the cyst wall. On tracing this canal beyond the wall of the sac it was found to dilate, its lining being white and smooth and, at some points, being thrown into transverse folds. The tail of the pancreas, which contained this duct, was indurated and sclerosed, containing no well marked acini, but it had retained its glandular structure. The terminal blind end of the duct, much dilated, was surrounded by dense connective tissue. The length of the duct from the sac to its termination measured two inches. The right extremity of the groove terminated in a second opening, through which a probe three mm. in diameter could be passed directly into the common duct in the head of the pancreas, after passing the concretion which filled the duct. Between the tail and head of the pancreas the glandular tissue had entirely disappeared, and its space, to the extent of two and a half inches, was taken up by the posterior wall of the cyst, which rested directly against the soft tissues between it and the vertebral column. The large vessels behind the tumor were not adherent, and in nowise affected by the tumor. In his remarks on the origin of this cyst, the author expressed his belief that it was caused by dilatation of the ductus Wirsungianus from obstruction to the free outflow of the pancreatic secretion by the calculus. The lungs and intestines were the seat of extensive tubercular disease.

Remarks.—The specimen just described illustrates an important lesson in pathology, viz. that long continued obstruction will eventually result in total destruction of the anatomical structure, and physiological function of the organ or part of organ beyond the point of obstruction. This fact has a direct practical bearing on the question of treating a cyst of the pancreas by the formation of a pancreatic fistula. The definitive closure of the fistula would be prevented if the distal portion of the gland tissue remained intact and the obstruction to its outflow remained permanent. Clinical experience and pathological specimens, however tend to prove that the enormous distension and pressure produced by these cysts, as well as the etiological conditions which produce them, result in almost complete destruction of the secreting structure in the immediate vicinity of the cysts, and the distal portion of the gland, which is equivalent to cessation of the secretory function of that portion of the organ.

---

[1] Auserlesene pathologische-anatomisch Beobachtungen. Virchow's Archiv, vol. [illegible], p. 360.

The second specimen described by von Recklinghausen was obtained from a male, aged 26 years who also died of diabetes. The lungs, pleura, and intestinal canal revealed the presence of tubercular lesions. The pancreas had undergone fatty degeneration so that only its head contained remnants of healthy glandular tissue. The common duct in the head of the organ was found dilated, and presented a varicose appearance. It contained a tenacious whitish fluid in which were suspended small calculous fragments composed of carbonate and phosphate of lime. In addition the duct contained two calculi, of which one measured one inch in length and three eighths of an inch in thickness, the second, still larger in size was one and one third of an inch long and of the same thickness. Both of these stones presented depressions and elevations on their surfaces which corresponded to the irregularities of that portion of the duct in which they were lodged. The common duct in the body and tail of the organ was dilated, its walls much thickened. The same changes were observed in the accessory ducts which could be traced through the fatty tissue, where they were seen to terminate in white strings of connective tissue. The distal ends of the small ducts contained mucus and fine calculous concretions.

Remarks.—In this instance, the dilatation of the duct did not proceed to any great extent, on account of the fatty degeneration of the organ, which probably occurred *pari passu* with the formation of the cause of obstruction, consequently the physiological activity of the gland was abolished, and no pancreatic juice was secreted behind the seat of impaction. The presence of the adipose tissue which preserved the shape and size of the organ is attributed by the author to a hypertrophy of the interstitial and adipose tissue rather than to a fatty degeneration of the secretory elements of the gland.

ABSTRACT OF THE ADDRESS OF SAMUEL K. JACKSON, M. D., NORFOLK, VA.,

PRESIDENT OF THE VIRGINIA STATE MEDICAL SOCIETY.

Delivered Wednesday Morning, Sept. 16th, 1885.

Among the hindrances to a more rapid march was the need of instruments of precision to assist our imperfect senses, and their subsequent invention gave a great impulse to medicine. Another of the hindrances to a more rapid growth, is a want, on the part of practitioners of a confidence in their resources, a hankering after novelties, and a too great credulity in the vaunted claims of medicines, and more particularly of combinations of therapeutical agents. They are too apt to allow enterprising pharmacists to do their thinking for them. Without clinical experience, how could they become good advisers as to the employment of therapeutical agents? and what is their testimony worth? The French courts have recently decided that no compound medicines can be sold except by those holding diplomas.

Among the errors of the times is the abandoning of the settled principles of medicine, principles which were the deductions of sound philosophy. An instance of this is the disregard of the principle that "local bleeding should never be practiced unless general blood letting had preceded it." This sound philosophical principle is well illustrated in the water-room, which is a somewhat recent invention. If a full current of blood is directed to one part of the body and suddenly arrested, serious consequences must ensue from the suddenly checked momentum.

The new treatment of pure inflammatory or fibrinous pneumonia he regarded an error which had been brought about by its being required in croupous pneumonia, when the sthenic form of the disease requires an entirely different mode. The two forms must be distinguished to ensure success in the treatment.

Another popular error is the use of cold baths for diminishing temperature, means as unphilosophical and irrational as to attempt to cool your stove by pouring water over it. The reasons for this view have been recently given in the *Physician's Magazine*, August, 1885. But a still greater error is the use of cardiac sedatives in inflammatory diseases. The advocates for their use forget the increase of fibrine during these diseases as well as the fibrinous deposits in the capillaries which the heart is struggling to remove. It is better to dissolve the fibrine and thus remove the obstruction, for then the heart soon becomes quieted, or if it is not you may then use your sedatives.

The absurdity of the two last mentioned class of remedies is well illustrated by supposing a man pumping hot water, holding in suspension melted wax or tallow, up into a reservoir. If his pipes become chilled the wax congeals, and he must work the harder. If he chills them further he increases the difficulty, and if he pump less energetically his conduits become so clogged as to prevent his working at all. Among the retarding influences to medicine were the want of the right men and the want of proper training. But there is an improvement in these respects brought about in great measure by the pressure brought to bear on schools, and by the publication of examination papers of candidates who had been graduated at some of our best schools. All of us have seen instances of such ignorance, and it has been difficult for us to understand how such could obtain diplomas. If such ignoramuses could elude sage professors, it is not to be wondered at that the people, unlearned in medicine, should consider them "*smart doctors*"

He briefly referred to medical education, and to the efficient State Board of Health of Virginia For want of time he was obliged to pass by the consideration of the factors in the recent high development of medicine, but he felt that he must acknowledge the valuable work contributed by the specialists However injurious to themselves in making them one sided men, it must be acknowledged that they have been of service to the profession

Our legislature should be petitioned to remove the license tax on physicians, which ought not to be imposed, because the most prominent work of the profession, at least at this day, is in the direction of preventive medicine The more disease we prevent the less we have to treat, and therefore the less compensation we receive *We are made to pay for thus benefitting the community in which we live* Virginia is one of the few, if not the only, States that taxes physicians

He urged upon the Society to do more original work, and upon the schools of the State to inspire their students with a love for original investigation, and instruct them in its methods

He suggested as an interesting and important subject of investigation, ' The Antagonisms of Germs," as he had no doubt that before very long they would be made use of for the cure of zymotic diseases We know of a few of these antagonisms, and we may reason from these that there are many others which probably we may take advantage of as therapeutic means We know that there is an antagonism between the malarial and typhoid fever poison Long before the use of modern antiseptic, *e g*, carbolic acid, etc, we were in the habit of using yeast poultices for ill conditioned ulcers, though we did not know it, we were making use of the antagonism between the torula cerevisiae and the pyogenic organism of the ulcer, and with an effect that compares most favorably with the modern means Erysipelas has lately been shown to be somewhat antidotal to cancer Ergot is said to be a prophylactic to puerperal fever, and an effectual remedy in whooping cough The use of the decoction of jequirity in pannus and granulated lid is another instance of these antagonisms When in after years these antagonisms shall be made use of therapeutically, for the cure of zymotic diseases, it may be a gratification to the then living members of this Society to remember that the suggestion was first made on this floor [1]

He urged the schools to give the proper training for this work, to educate the senses and the faculties needed for it, particularly the color sense, and faculty of appreciating and distinguishing form

He concluded by making the following suggestions 1st As to our inter State relations, proposing a plan for inter State representation 2d Proposing sanitary conventions, to interest and instruct the different communities in sanitary subjects and measures 3d On the commitment of the insane 4th Bringing to the attention of the proper departments of the government the fact that the Surgeons of the Army, Navy, and Marine Hospital Service sometimes set themselves in competition with the local physicians where they may be stationed, with a view of preventing this outrage 5th Arrangements for the collective investigation of disease 6th To interest the Society in the Rush monument 7th To attempt to secure representation of the profession in the State Legislature

---

MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS

COMPOUND TINCTURE OF BENZOIN —Under the heading of "Friar's Balsam," DR TITUS DEVILLE, in a paper read before the Harrogate Medical Society, February, 1885, and given in full in the pages of the *Provincial Medical Journal*, July 1, 1885, gives a very interesting account of this drug and its usefulness in medicine This appears to be the only known medicinal preparation which has been perpetuated in its original form from the earliest ages of Christianity, and has maintained its high repute even to our own times in many civilized countries Its principal constituents form the incense powder which was employed in the ceremonies under the Mosaic dispensation, and perpetuated by the early Christian Church in its ritual, and is still found in daily use as a sacred emblem in most of the rites of the Universal Church In remote centuries, from the monasteries the hospital first sprang into existence The monks cultivated the art of medicine and surgery, and the wounded resorted thither to obtain the benefit of the skill of the brotherhood, and as an application ready at hand, a spirituous or vinous solution of incense powder most frequently produced a salutary influence, heightened first by the confidence of the donor in its special virtues, by the fact of the powder having been blessed and consecrated to holy purposes, and, secondly, being received by the sufferer with a lively faith in its wonderful efficacy. One of the synonyms of the Baume des Frères, frequently employed by ancient writers, is "Incense Balsam," and amongst other names by which the compound tincture of benzoin is known may be cited "Compound Tincture of Benjamin," "Jesuits' Drops," " The Commander's Balsam," "Wound Balsam," and ' L'Alcoolat Vulneraire "

Dr Deville considers its antiseptic virtues, its astringent and stimulating properties, and its therapeutical value externally when applied to wounds or diseases of the skin, abrasions, etc, internally in various fluxes and disorders of the mucous tract As to its antiseptic virtues he summarizes as follows

1 It coagulates albumen—(*a*) of the blood, (*b*) synovial fluid of tendinous sheaths and articulations, (*c*) albumen serum which bathes the meshes of areolar tissue, (*d*) the albuminous fluid which moist-

---

[1] Since the above was written the journals contain a notice of Prof Cantani of Naples using the bacteria of putrefaction (bacterium termo) for the destruction of the bacillus tuberculosis and give to him the credit of first suggesting the use of these antagonisms in a paper dated July 1885 whereas the President claimed that he had suggested it two years before at the meeting of the Virginia State Society at Rockbridge Alum Springs on Sept 6 1883

ens the surface of serous membranes of splanchnic cavities

2 When applied to the surface of wounds it coagulates immediately the albumen, which forms a grayish-white layer This coagulum is pure albumen

3 It provokes no inflammatory action or irritation

4 It arrests the bleeding of small vessels

5 It favors union by first intention, by producing an immediate coagulation at the surface of wounds, and by accelerating the plastic secretion

6 It prevents diffusive phlegmon (cellular cutaneous) by coagulating the albumen of aureolar tissue, which becomes at once dense and impermeable to any noxious liquids bathing the surface of the wounds

7 It prevents the propagation along tendinous sheaths of prurulent fluids by coagulating instantly the albumen of the synovia, and causing the surfaces of the sheaths in contact to become adherent, rendering them impermeable to liquids bathing the surface of recent wounds, and favoring adhesive inflammation of the synovial sheaths in the vicinity of the wound

8 It prevents purulent *infection by coagulating* the blood in the open veins at the surface of wounds, and in consequence of the instantaneous obstruction favors a prompt local adhesive phlebitis

With regard to its stimulant and astringent qualities, in acute inflammations its exhibition internally requires caution It is useful in many internal disorders, especially in constitutions and diseases attended with marked debility, in all asthenic fluxes, but is contraindicated in cases of great gastric irritation, or, having sthenic phases Applied to recent wounds it causes pain, and is frequently an irritant to such an extent as to impair and somewhat endanger union by first intention But when the edges of a wound have been carefully brought together and maintained by unirritating methods, then a solution composed of equal parts of Friar's balsam, collodion, and glycerine, with tannic acid, to brush over the intervening exposed parts of the wound, acts mechanically by forming a thin transparent pellicle, thus excluding the air, and keeping the parts in close apposition In threatened bed-sores, chronic inflammation of the flexures of the thighs and sides of the scrotum, vulva etc , it quickly induces healthy action It is a powerful stimulant when applied to foul and indolent ulcers and is an excellent preparation to apply to a carbuncle when the slough is separating Injected undiluted it decomposes fœtid secretions and establishes healthy action in these troublesome affections It is a valuable hæmastatic when applied to fresh wounds Dr Deville finds it very efficacious in chronic skin diseases of the scaly variety, when combined with vaseline, iodoform, zinc ointment, ungt hydrargyri nitratis, oleum cadeni, creosote, or petroleum He uses it mixed with equal parts of proof spirit or brandy, and injected into the uterine cavity, in severe cases of post partum hæmorrhage Alone or combined with equal parts of tannate of glycerine, it also has a wonderful efficacy in cases of abrasions of the mucous membrane, and slight ulcerations of the os uteri, applied on cotton wool It also proves very useful in gonorrhœa when combined with copaiba, oil of sandal-wood, and other preparations, after the acute stage has ceased He uses the following in chronic bronchitis by way of inhalation, where there is a profuse secretion and troublesome cough Creosote, tincture of conium and compound tincture of benzoin In phthisis, inhalations of carbolic acid, eucalyptol, tincture of conium, as adjuncts to the compound tincture of benzoin, one or more, as dictated by experience, frequently gives considerable relief In all asthenic fluxes, especially in internal hæmorrhage unconnected with piles, he combines this drug with the tincture laricis and liq opii sed

Papainized Milk—Dr Sidney Martin in a report on *the "Action of Papain," gives the following* practical suggestions regarding the preparation of papainized milk

A pint of milk is taken, and a quarter of a pint of water, add an equal volume of milk to the water, and 30 grains of bicarbonate of soda, and boil, add the remaining milk to the hot liquid The resulting temperature varies from 45° to 55° Cent , it is usually about 48° Cent (118° Fahr), the variation depends, of course, on the temperature of the cold milk The papain must now be quickly stirred in, and the mixture covered with a cosey, and placed in a warm place After digestion, it is boiled, to stop the action This method does as well for pancreatic as for papain digestion, it obviates the use of a thermometer, and so can readily be done in the ward or sick room

For preparing a partly digested milk, seven grains of papain, with an hour and a half's digestion, is quite sufficient, using a pint of milk in the manner above described, for the more complete digestion, 10 grains for two hours must be used

The food is greedily taken by kittens, but he has not yet tried it on patients —*British Medical Journal*, July 25 1885

Tincture of Iodine in Diphtheria —Dr Edward Adamson (*Practitioner*, July, 1885), has found iodine, taken internally in a liquid form, as the tincture may be thoroughly relied upon, in order to promote the separation of exudative membranes, to check the formation of new exudations, to lessen the secretion of viscid offensive saliva, to destroy the vile factor of the breath, and, in fact, generally to correct the morbid condition of the fauces, tonsils, etc Within thirty-six hours a marked improvement *in every respect* is noticeable, which is generally perceptible even to the patient, so that there is often an eager desire to accelerate the frequency of the doses of the iodine Out of fifty-five cases of diphtheria thus treated with tincture of iodine alone—and some very grave cases indeed—fifty three recovered without any troublesome sequelæ whatever The doses for adults were five to seven minims every hour, or every two hours, according to circumstances, and for children of six years to twelve years, *two to three* minims taken every two hours in syrupous aurantii ℥iij and water, or in some other neutral syrup

MEDICINE

A Test for Hearing.—Dr. Jos. Gruber (*Monat. fur Ohrenheilkunde*), referring to Rinne's experiment as to the comparative facility in the conduction of sound through the air and through bone under normal conditions, and to his statement that the sound of the tuning-fork is heard at the meatus after it has ceased to vibrate on the vertex, suggests the following experiment as an additional test of hearing. When the tuning fork (held before the ear according to Rinne's experiment) has become inaudible, place one finger upon the meatus of the ear to be examined, in such a way that the finger loosely closes the passage. Now place the tuning fork against the finger closing the ear, and the sound is again heard, and continues for a longer or shorter time. When the tuning fork has ceased to vibrate on the finger, it is again heard through the air, the stronger in proportion to its nearness to the meatus. Gruber explains this on the ground that the sound from the tuning-fork touching the finger in contact with the walls of the external auditory meatus is conducted to the labyrinth better than by contact with any other portion of the skull, such as the teeth. Gruber thinks that this method will be of service in detecting cases of one sided simulated deafness.—*Medical Chronicle*, July, 1885.

Chloroma.—Since Balfour in 1834 described chloroma, ten cases have found a place in medical literature, though of these one is somewhat doubtful, and may have been anæmia or pernicious anæmia. An eleventh case has lately been observed by Gade in Christiana. The subject was, as is invariably the case, a child, a little girl of five years. The first symptoms were deficiency of blood, a tumor of the left cheek, toothache, otorrhœa, singing in the ear, deafness, and exophthalmus, which gradually increased. Afterwards fever and extreme prostration supervened, and she died in about two months. At the autopsy, numerous yellowish green tumors of fibro sarcomatous structure were found in many different parts of the body, more particularly on the periosteum. They were found also on the dura mater, in the liver, colon, lateral ligaments, and kidney, and even in the marrow of the long bones. On the legs a number of dark spots were seen, some of which contained a soft greasy substance. The origin of the greenish coloring matter was thought by Otto, and Gade agrees with him, to be in the fat granules, numbers of these being found in the cells, and so to be independent of both bile coloring matter and hæmatin.—*Lancet*, July 11, 1885.

Tabes Dorsalis in Women.—Mobius has described thirteen cases of tabes in women, making, with cases already published, altogether eighteen, in which special attention was directed to any syphilitic taint which might be present. It will be remembered that the opponents of the theory of the syphilitic origin of locomotor ataxy lay stress on the circumstance that, when tabes occurs in women no specific history or symptoms are found, and that the disease is therefore owing to entirely different causes, such as the influence of cold, damp, etc. Mobius, however, has by careful examination succeeded in eliciting a syphilitic history in all but two of his female cases. This must be, in the nature of things, a point of great difficulty, and one which it is only too easy to overlook in examining a case, unless specially inquired into. If we consider, in addition to this, how eager women are to deny that they ever had such a disease, it will be acknowledged that some positive evidence is of more importance than numerous negative statements. Moreover, the immediate consequences of infection are often in women so exceedingly obscure, that they are themselves unaware of being infected, and mild forms of primary and secondary syphilis are known to lead more commonly to tabes in after life than severe manifestations. Mobius has found that the age of these women was between 21 and 43, the same as in men, where the disease habitually occurs in the prime of life. All had had sexual intercourse, tabes has never been observed in a virgin, nor in women whose character or habits of life rendered infection unlikely. None of the patients had had suspicious discharges, buboes, miscarriages, baldness, ulcerated throat, and cutaneous affections. It is known that women who have had connection with syphilitic men, and given birth to syphilitic children, may never have shown signs of syphilis themselves, and yet have undergone a change in their constitution, in so far as they have acquired an immunity against primary infection. Some authors call this syphilization, and look upon it as a sort of inoculation. Such syphilization may possibly be sufficient for the causation of tabes. None of the women examined by Mobius had any symptoms of syphilis at the time, except slight enlargement of lymphatic glands and old cicatrices, showing that the affection had been mild. The interval between infection and the beginning of tabes was on the average seven years, the shortest being four, and the longest fifteen years. Several of these patients had given birth to healthy children, either in the interval, or after the outbreak of tabes. As far as exciting causes were concerned, the puerperal state appeared to have been frequently instrumental in accelerating the evolution of tabes, the debility caused by profuse hæmorrhage aggravating the condition in one case. The influence of cold was also mentioned in several cases, depressing emotions and the neurotic constitution appeared to be less effective. In a number of cases, however, no exciting causes whatever could be determined.—*Centralbl. fur Nervenheilkunde*, Oct. 15, 1884, *Practitioner*, July, 1885.

SURGERY

Ligations of the Arteries of the Palm of the Hand and Sole of the Foot.—Ed. Delorme has recently published a very valuable memoir on this subject, illustrated by a large number of plates, and supplemented by a number of dried preparations, among them over two hundred hands, which are deposited in the museum at Val-de-Grace. His methods are as follows:

1. *Ligature of the Radio palmar.*—Make an incision slightly convex from the scaphoid tubercle a lit-

tle outwards, 0 m, 05 centimètres in length to the second interdigital space

2 *Ligature of the Direct Cubital (superficial arch)* Trace the line of Boeckel and incise externally to the pisiform bone, following a line to the third interdigital space and line of Boeckel

3 *Ligature of the Transverse Portion* —Extend the incision of Boeckel 5 to 8 millimetres

4 *Ligature of the Trunk of the Collaterals of the Thumb* —Follow on the back of the hand the internal border of the first metacarpal The artery is between the first dorsal interosseous and the adductor pollicis

5 *Ligature of the Trunk of the Index Collateral* — Incise the length of the internal border of the second metacarpal, remove the first dorsal interosseous, the artery is under its aponeurosis

6 *Ligature of the Radial Origin of the Deep Arch* Same incision, pass to the tubercle of the second metacarpal and then inwards to the anterior surface of the bone, where will be found the origin of the deep arch

7 *External Palmar Incision* —Incise on a line passing from the interval of the eminences and to the external border of the index Cut deeply to the external border of the first of the lumbricales, the artery will be found in the insertions of the adductor pollicis

8 *Median Palmar Incision* —Incise on a line which prolongs the axis of the index to the middle of the hand, there find the external border of the lumbrical of the medius, flex the hand and the artery will be found at the superior portion near the base of the third metacarpal, crossed by the ulnar nerve

9 *Internal Palmar Incision*—Passing between the hypothenar eminence and the flexors, let the incision follow a line from the interval of the eminences near to the fold of the little finger Seek the interval between the flexor minimi digiti and the mass of the hypothenar muscles, flex the fingers, and the artery is under the aponeurosis, it crosses the tendon

In his study of the foot Delorme has deposited in the museum more than fifty injected feet to prove his dissections He considers

1 *Internal Plantar* (at its origin) The incision passes from the scaphoid tubercle to the tubercle of the small apophysis of the calcaneum Cut through the skin and aponeurosis and draw aside the fibres of the adductor pollicis

2 *External Plantar* —Same incision, the probe following the direction of the artery which may pass for 7 centimetres from its origin

3 *External Plantar* (calcanean portion) Trace across the heel a line prolonged in the direction of the internal malleolus A little below it, some 8 centimètres, incise a line which shall pass from a quarter of the internal heel to the first interdigital space Under the aponeurosis, disengage the internal border of the short flexor on the plantar surface of the accessory appears the nerve, and the artery is external to it

4 *External Plantar* (calcaneo culoid portion) Incise below the transverse line of the heel, following a line passing from the middle of the heel to the space which separates the third and fourth metatarsals Beneath the aponeurosis, disengage the external border of the short flexor, the artery is applied to the superficial surface of the accessory with the nerve and veins

5 *Ligature of the Arch* —Antero external plantar incision —Incision of 8 centimetres at the crossing of the lines going from the tubercle of the fifth metatarsal to the internal sesamoid bone of the first, and from the crease of the fourth with the fifth in the middle of the heel Pass a little within this last line and parallel to it Seek the external border of the adductor obliqus, the artery is at its superior insertion, covered by the interosseous aponeurosis The nerve conceals the vessel on the third metatarsal

6 *Ligature of the External Plantar at its Termination* —Antero internal incision Trace a line perpendicular to the axis of the foot, one centimètre in front of the internal tubercle of the first metatarsal, a second line directed from the first interdigital space to the internal quarter of the heel, at the junction of these two lines, a little externally on the second, and for about 8 centimètres, make the incision, the short flexor and the internal plantar nerve will be recognized Penetrate between the short flexor and the oblique adductor, feel the tubercle of insertion of the long lateral peroneal The artery will be found some millimetres below and a centimetre in depth on the second metatarsal —*Archives Med Belg*, May, 1885

VARICOCELE TREATED BY THE SUBCUTANEOUS WIRE LOOP —MR R BARWELL, in the *Lancet*, May, 1885, gives an abstract of 100 cases of varicocele treated by the subcutaneous wire loop In none of these did the operation produce bleeding, shivering, pyrexia, or erysipelas The wire takes from eight to sixteen days before it comes away The operation is almost painless, except at the moment of tightening the wires The results of this operation are extremely good, and it is an easy and safe method of procedure

OBSTETRICS AND GYNÆCOLOGY

EXTEMPORANEOUS EXAMINATION OF WOMAN'S MILK —DR HELOT, in the *Union Médicale de la Seine Inférieure*, recommends a simple method of determining the quality of human milk He undoubtedly accords superiority to chemical analysis, but as this process is so long and difficult, the common practice has been to rely upon the appearance of the milk Dr Helot's method consists in comparing the number of drops in a given volume of distilled water at 60° F with those of the same volume of milk Good milk, such as produces a mean increase of an ounce per day in the child's weight, gives thirty five drops in the same volume which, of water, gives but thirty If the milk be of superior quality the volume may yield as high as thirty eight drops If on the contrary but thirty three or less are obtained, the milk should be mistrusted Both breasts should be examined while the nursing is going on —*Medical Record*, August 15, 1885

THE
Journal of the American Medical Association
PUBLISHED WEEKLY.

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE, INCLUDING POSTAGE.
PER ANNUM, IN ADVANCE $5.00
SINGLE COPIES 10 CENTS.

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address,
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 65 RANDOLPH STREET,
CHICAGO, ILLINOIS.

SATURDAY, OCTOBER 3, 1885.

THE EXECUTIVE COMMITTEE OF THE NINTH INTERNATIONAL MEDICAL CONGRESS.

The first meeting of this Committee, consisting of the General Officers of the Preliminary Organization of the Congress and the Presidents of the Sections, was held in New York, September 24, 1885. More than a quorum of the members of the Committee were present, consisting of the President, Prof. Austin Flint; Treasurer, E. S. F. Arnold, M.D., M.R.C.S.; Chairman of the Finance Committee, Prof. Frederick S. Dennis; President of the Section of General Medicine, Prof. Abram B. Arnold; President of the Section of General Surgery, Prof. Wm. T. Briggs; President of the Section of Military and Naval Medicine and Surgery, Prof. Henry H. Smith; President of the Section of Diseases of Children, Prof. J. Lewis Smith; President of the Section of Anatomy, Prof. Wm. H. Pancoast; President of the Section of Collective Investigation, Vital Statistics and Climatology, Henry O. Marcy, A.M., M.D.; President of the Section of Dermatology and Syphilis, Prof. A. R. Robinson.

The Committee was organized by the election of Henry H. Smith, of Philadelphia, as Chairman, and F. S. Dennis, of New York, as Secretary *pro tem.* After a free interchange of views, Prof. Frederick S. Dennis was appointed Associate Secretary-General, and another appointed to the chairmanship of the Finance Committee. The President, the Secretary-General, and the Associate Secretary-General were instructed to issue a circular announcing the Preliminary Organization of the Congress and the rules adopted for its membership and government. To prevent all further misunderstanding, both at home and abroad, the Committee unanimously adopted the following resolution:

Resolved, That this Executive Committee enters upon the management of the affairs of the Ninth International Medical Congress, with the understanding that, in accordance with Rule No. 10, its powers are not restricted except by the rules and regulations adopted Sept. 3, 1885, by the Committee of Arrangements appointed by the American Medical Association in April, 1885, and that the actions of this Executive Committee, are final, not being subject to revision, amendment or alteration by either the Committee of Arrangements or the American Medical Association.

The Rule 10, alluded to in this resolution, is as follows:

"10. The President of the Congress, the Secretary-General, the Treasurer, the Chairman of the Finance Committee, and the Presidents of the Sections, shall together constitute an Executive Committee of the Congress, which Committee shall direct the business of the Congress, shall authorize all expenditures for the immediate purposes of the Congress, shall supervise and audit the accounts of the Treasurer, and shall fill all vacancies in the offices of the Congress and of the Sections. This Committee shall have power to add to its membership, but the total number of members shall not exceed thirty. A number equal to one third of the members of the Committee shall constitute a quorum for the transaction of business."

The proceedings of the Committee were characterized by entire harmony and a commendable zeal in pushing forward the proper preparations for the Congress.

ASPIRATION A CAUSE OF THE SPREAD OF TUBERCULOSIS WITHIN THE LUNGS.

In the *Zeitschrift für Klinische Medicin*, vol. 3, PROFESSOR LEYDEN, of Berlin, publishes an article entitled "Klinisches uber den Tuberkel-Bacillus," wherein he announces very decidedly his belief in the possibility of auto infection in tuberculosis. He states that the extension of tuberculosis within the lungs takes place in the later stages of the disease, when, owing to the weakened state of the organism, the ability to expectorate becomes inadequate to expel the offending secretion. The ineffectual efforts, that are made to cough, only result in dislodging the stagnant material, which, during each act of forced inspiration, is driven by a process of aspiration into more distant parts. The alveoli, thus invaded by a substance rich in bacilli, furnish a fresh starting-point for the disease. This proposition, which is not new, is yet worthy of thoughtful consideration. It will be observed that Leyden limits this occurrence to the later stages of consumption, but in a contribution to the *Berliner Klinische Wochenschrift*, vol 31, Dr Von Brunn, of San Remo, makes some further suggestions which appear to us to be worthy of presentation to the readers of the JOURNAL

DR VON BRUNN not only heartily endorses Leyden's proposition, but thinks that under favorable conditions tuberculosis may be spread within the lungs by aspiration even during the earlier stages These conditions are furnished when the larynx, as well as the lungs, is involved If, as is not unfrequent, the epiglottis and contiguous tissues become inflamed and ulcerated the act of deglutition is rendered extremely painful and almost impossible of performance But a small amount of food, and that chiefly fluid, is injested, and consequently the nutrition of the body suffers Hectic fever, with its attendant symptoms develops, and the disease assumes the florid type This is the explanation generally accepted by the practitioner Dr Von Brunn however, would add another factor to that of inanition, viz In consequence of the partial erosion of the epiglottis, or of its inability for other reasons to adequately occlude the rhyma glottidis, particles of food frequently make their way into the chink of the glottis Their presence here at once excites cough, which, however, is preceded by a forced inspiration Hence, not only the offending fragment of food is drawn by aspiration into the bronchial tubes, but along with it goes some of the laryngeal or bronchial secretion with its cargo of bacilli If, now, the epiglottis can not accurately close the larynx, or, if the patient's strength be deficient, the explosive effort of the cough is inadequate to remove the offending material which becomes lodged in peripheral alveoli A circumscribed patch of lobular pneumonia is the result perchance, which, to use Dr Von Brunn's words, furnishes excellent ground for the growth of bacilli

Von Brunn was long ago led to infer this possibility from the observation, that in cases of laryngeal phthisis, the pulmonary affection advances coincidently with the appearance of multiple zones of inflammatory infiltration within the lungs What was previously but an inference has recently been verified into a conviction by the following case

Herr L thirty five years of age, of a healthy family, has suffered with tubercular deposit in the upper lobe of his right lung Nevertheless the constitutional disturbance remained slight until November of last year He then lost appetite strength and desire for work, and, as his larynx appeared to be free from disease he was sent to Davos, Switzerland The high mountainous climate soon restored his general health, but exercised a deleterious influence upon his larynx Hoarseness increased to aphonia, and he was annoyed by pain, a constant feeling of dryness of the throat and occasional attacks of difficulty of deglutition Accordingly he removed to San Remo in February last, and came under the care of Dr Von Brunn His general condition was encouraging A laryngoscopical examination, however, revealed inflammatory swelling of the epiglottis, an ulcer the size of a three cent piece upon the left glosso epiglottidian fold, erosion of the posterior surface of the arytenoid cartilage, swelling of both vocal chords, with deep ulceration of the posterior third of the left one Physical examination discovered some consolidation of the apex of the right lung, with occasional dry râles A microscopic examination of the sputa and of the secretion of the larynx disclosed the presence of numerous bacilli Notwithstanding his difficulty in swallowing, the patient was able to consume sufficient nourishment for the maintenance of his general health The twentieth of last March, while at breakfast, a fragment of food escaped into the glottis, and set up a violent paroxysm of coughing with convulsive inspiratory movements A few hours subsequently the man was seized with a chill, followed by an elevation of temperature to 104° F Upon percussion the Doctor found a patch of lobular pneumonia the size of an apple, and situated just below the left scapula, at a point which but the day previous, had yielded perfectly normal resonance Ten days later the same thing was repeated, a violent fit of coughing while partaking of food, and the repetition a few hours thereafter of chill and fever This time the Doctor outlined a circumscribed area of dulness in the left axillary region Von Brunn very reasonably thinks the causal relation of the cough to the development of the acute lobular pneumonia suggests itself The particle of food, that together with tubercular products, rich in bacilli, had been swept by aspiration into the peripheral alveoli, acted as a local irritant, and thus set up a pneumonic process of limited extent, which, in the Doctor's opinion, would afford an excellent *nidus* for the maintenance of the tubercular bacilli in full activity In order to obviate any further accidents of a similar kind, insufflations were employed of cocaine and morphine, as recommended by Schnitzler, fifteen minutes before every meal, apparently with most favorable results

This case is a suggestive one, to say the least Whether one be inclined to agree with the implied belief that the bacilli contained in the secretion constitute the *materia morbosa*, or not, he must recognize the danger of extension of the disease, which lurks behind the inflammatory process, as well as the immediate danger involved in the acute pneumonia. It suggests also the importance of a careful preventive treatment.

FUNCTIONAL TROUBLES DEPENDENT ON NEURASTHENIA.

In a paper read at the recent annual meeting of the British Medical Association, and published in the *British Medical Journal* of September 5, DR. J. STRAHAN calls attention to what he calls some "Puzzling Conditions of the Heart and other Organs dependent on Neurasthenia." In view of the comparative frequency of these conditions—being much more common than is generally supposed—the fact that they are sometimes only recognized with difficulty and in many cases not at all, and that the subject is untouched in medical literature save by a very limited number of authors, Dr. Strahan's paper is very timely.

These conditions, or symptoms as they may be called, are veritable diagnostic stumbling blocks when occurring as purely neurasthenic phenomena, since they often point to seemingly serious organic troubles. Dr. Strahan defines neurasthenia as "a condition of prostration of the whole or some part of the nervous centres, owing to deficient nutrition, in which there is no gross lesion, visible to the eye or to the microscope, of any part of the brain or spinal cord." He expresses the opinion that such cases as the so called spermatorrhœa, chloralism, bromism, alcoholism, meconism (opio mania), caffeinism, and the nerve-prostration due to many such drugs, are examples of general neurasthenia, in so far as the purely nervous symptoms, and not the material lesions caused, are concerned.

The chief functional troubles occurring in neurasthenia are those of the heart and vascular system and of the brain—and, it may be added, purely neurasthenic phenomena in women, either simulating or leading to a diagnosis of uterine disease, as was pointed out by Professor Goodell some time since, in a lecture in which he insisted that a great medical error of the day is the mistaking of nerve disease for uterine disease. So frequent is this error that many, even very eminent specialists, seem to regard the uterus as an anatomico pathological Mecca to which every symptom or condition in woman points as a sign post. But though these puzzling conditions of which Dr. Strahan speaks are usually symptoms pointing to cardiac or cerebral trouble, we cannot draw hard and fast lines, and distinguish one case as a purely cardiac neurasthenia, and another one as cerebral neurasthenia (or uterine neurasthenia). In the case of a male the cardiac and vascular phenomena are always attended by cerebral symptoms, and the cardiac and cerebral conditions are usually attendant on the supposed uterine symptoms in the female. There can be but little doubt, however, that cases of pure neurasthenia are much more frequent in males than in females, and certainly the affection—if it may be so called—is far more frequent among professional men. Indeed, one in every ten of the patients is said to be a medical man.

Prominent among the vascular phenomena in neurasthenia is visible pulsation of the arteries, when functional. As Dr. Strahan well points out, the Corrigan or water-hammer pulse is by no means a pathognomonic symptom of aortic insufficiency, as it also occurs in fibroid degeneration of the arteries, great arterial relaxation, and in high arterial tension. All are familiar with the fact that excitement will often cause visible carotid pulsation, especially in nervous women, and we also know that in pericarditis accompanied by carditis or pericardial effusion, which are usually associated with arterial relaxation, visible pulsation is common and well marked. Dr. Strahan points out a valuable diagnostic difference in these cases, in aortic regurgitation the carotid pulsation extends to the lobe of the ear, and perhaps to the facial and temporal arteries, while in purely nervous cases it extends only half-way up the neck. But though visible pulsation with very tortuous arteries points more to fibroid degeneration, tortuosity may be caused by high tension without degeneration; though it does not appear in the high tension due to Bright's disease, nor in that of diabetes. The complex nervous supply of the heart is sufficient explanation of the susceptibility of that organ to changes in nervous force, and we could not expect otherwise than that the heart should be disordered in neurasthenia, since it is easily influenced by an uncontrolled emotion, any reflex irritation from the brain, alimentary canal, or prostatic urethra.

Insomnia is a prominent neurasthenic condition of functional cerebral disorder, and its susceptibility to treatment is an excellent criterion of improvement of the neurasthenic condition. The insomnia of neurasthenia seems to be characterized by a markedly varied and dissonant activity of the brain, and by a variety of spasmodic movements of the limbs when the person is on the point of falling asleep, and during the normal waking hours the patient finds it impossible to concentrate the mind on any subject. In this connection, also, may be mentioned the morbid fears, and a peculiar and almost characteristic inability to look others in the face In the larger number of cases these fears are seen in male cases, and are usually the result of sexual exhaustion "Pain and weight at the vertex of the head (supposed to be distinctive of cerebral anæmia) are usually neurasthenic They may depend on cerebral anæmia immediately, but, if so, the anæmia depends on neurasthenia acting through the vaso motor nerves" Tenderness of the scalp—another neurasthenic symptom—is to the exhausted brain what spinal irritation is to the exhausted cord It should be particularly borne in mind that neurasthenics are liable to accommodative or muscular asthenopia, and that glasses totally fail to give relief in these cases

Finally may be mentioned a form of dyspepsia frequently encountered in neurasthenic cases, which is peculiar in that the sufferings are always greatest when the stomach is empty The gastric distress and other symptoms pass off when food is taken The fact that arsenic gives the best results in these cases is sufficient evidence of their neurotic origin

THE MORAL SIDE OF EUTHANASIA

About a year ago, a paper on "Euthanasia" was read by Dr Henry Leffmann before the Medico legal Society of Philadelphia The author of the paper did not express any decided opinion for or against this rather euphemistic term for what may be called *professional murder*, the paper was read to provoke discussion rather than for the purpose of drawing any conclusions In the *Medical Record*, of September [illegible], is a leading editorial article on this subject, in which the writer seems to take the ground that professional opinion is not *yet* in so advanced a state as to decide the matter in all cases, that the practice would have to be under legal restraint, and that "the further settlement of this question depends on the growth of public opinion We cannot hasten it For the present, the guide of each man must be his own conscience"

Our contemporary does not discuss the moral aspect of this question Perhaps it may be said that the physician, in his professional capacity, has nothing to do with the moral side of such questions And though our contemporary does not thus commit himself the inference is certainly very clearly drawn and expressed in the last sentence quoted But where is the consistency of the man who can hold—as does every physician—that destruction of the ovum, after gestation has commenced, is murder, save when the life of the mother is at stake, who can preach this doctrine to an unfortunate patient, and then, perhaps within the hour, terminate even a certainly hopeless case by his own act? What has the consent of the patient to do with the right or wrong of this question? Who knows but that the patient may regret his choice when too late? What physician will pretend to be the judge as to the absolute certainty of death in one-half of the cases that seem running on to a fatal termination? It is said that the rigid enforcement of the principles of euthanasia "would not allow for possible errors in diagnosis In cases of carcinoma and phthisis no room for such doubt would exist" And in the same paragraph it is said "Patients supposed to be *in extremis* have often recovered" Have not most desperate cases of phthisis—patients that seemed *in articulo mortis*—revived, come back almost from the grave, and lived for months and sometimes for a year or more? So that even in phthisis there is room for doubt—and while there is doubt there is always hope

A member of the Birmingham (England?) Speculative Club has thus formulated the relation of euthanasia to the office of the physician "That in all cases of hopeless and painful illness, it should be the recognized duty of the medical attendant, whenever so desired by the patient, to administer chloroform or other anæsthetic, so as to destroy consciousness at once and put the sufferer to a quick and easy death, all needful precautions being adopted to prevent any possible abuse of such duty, and means being taken to establish beyond the possibility of a doubt that the remedy was applied at the express wish of the patient" In other words, the physician is to don the robes of an executioner, and apply what our speculative friend is pleased to term a *remedy* It is to be hoped that the promulgator of that *formula* is not a physician The idea itself is ghastly, and the principle would put into the hands of unscrupulous parties a certain and easy method of being rid of an objectionable relative—for, though every medical man should blush that it may be said, there are men in the profession who could be bought to sign a certificate behind which the law could not go Should any one be tempted to deny this, we need only refer to those London physicians who have reached such a depth of vice that they could sign away the virtue of young and innocent girls for a pecuniary consideration, and are we to believe that these men would hesitate to perform the functions of professional assassins for money?

Our contemporary says further "The mind of the laity, as well as of the profession, has already changed upon this matter, the assumption in such cases being—as in all matters concerning man's relation to the hereafter—toward a more liberal standpoint." A more *liberal* standpoint on a moral question means nothing more or less than a more lax state of morality. We do not need liberality of opinion on these questions. And even though every member of the Birmingham Club should endorse this horrible principle, though every physician should declare his willingness to be a scientific assassin in these cases, and though every legislative body in the world should elevate this principle to a legal standard, it would still remain, and always will be murder.

SOCIETY PROCEEDINGS.

MEDICAL SOCIETY OF VIRGINIA.

Sixteenth Annual Session held September 15, 16 and 17, 1885.

The Sixteenth Annual Session of the Medical Society of Virginia, convened at Alleghany Springs, Montgomery Co., Va., at 8 P. M., September 15th, 1885. Owing to a railroad accident, the President, Dr. S. K. Jackson, of Norfolk, did not arrive until the next day. Dr. Bedford Brown, of Alexandria, presided the first night. Some 150 or more doctors were in attendance during the session—the largest number ever present at any session—and were the guests of the attentive proprietor of this far famed Summer Health Resort, Col. C. A. Colhoun. Drs. Geo. T. Harrison, of New York City, an Honorary Member of the Society, Archer Atkinson, of Baltimore, J. S. Conrad, of Matley Hill, Md., Thos. Evans, of West Virginia, and Wm. G. Eggleston, of Chicago, Ill., were among the prominent visitors from other States. About 110 new members joined during the session, which lasted through the night session of September 17th, when a handsome entertainment in the form of a banquet and a ball was given by the popular host to all the guests—ladies and gentlemen.

Tuesday, Sept. 15.—Evening Session.

The Annual Address to the Public and Profession was delivered by Dr. H. M. Clarkson, Haymarket, Va., whose subject was

Medical Societies—Their Relations to the Public.

A large promiscuous audience, composed of the visitors at the Springs from all parts of the United States, as well as the doctors, were kept interested for over half an hour in this address, full of useful general information and suggestions.

Dr. Isaac White, of Shawsville, Resident Physician at Alleghany Springs, Va., read a paper on the

MEDICINAL PROPERTIES OF ALLEGHANY WATERS.

The geological formations in this section consist chiefly of magnesian limestone and argillaceous slates. Ores of iron, silver, lead and zinc are in the immediate vicinity. The water of the Springs has a temperature of 56° F., and the specific gravity is 1.00283, it has a saline taste, and a slightly acid reaction. In giving the analysis, he incidentally stated that the effects of baryta and strontia are somewhat like those of arsenic. He had not become such an enthusiast in reference to Alleghany water as to claim for it specific properties for every disease, but the range of its efficacy is distinct and extensive. He recommended the waters especially in dyspeptic cases, using the term "dyspeptic" in its generic sense. He believed the magnesian salts in this water are their great power. Frequently, when first taken, the water produces a strange feeling in the head, a giddiness, which is often closely followed by decided headache. Erythema and even eczema, and sometimes boils developed after using the water. A glassful, gradually increased to two glassfuls, may be taken before meals, but the dose must be changed according to the desire for a tonic, diuretic or cathartic effect.

Dr. Wm. C. Dabney, of Charlottesville, Va., as President, presented the

REPORT OF THE VIRGINIA STATE BOARD OF MEDICAL EXAMINERS,

showing the Board organized according to law in November, 1884. The State law requires that any person who undertakes to begin practice of medicine in Virginia since January, 1885, shall pass a satisfactory examination on the seven usual divisions of medical study before the Board—regardless of college diplomas. Up to this time thirty-two candidates have passed satisfactory examinations and been licensed to practice medicine in Virginia, six have been rejected. Every one of the applicants were college graduates. A penalty of $500 fine is imposed on any one who undertakes to practice in Virginia unless he had a license prior to January, 1885.

The Report of the Necrological Committee, presented by Dr. S. C. Gleaves, of Wytheville, Va., shows that, during the year just ended, 16 of the 430 members on adjournment of the last annual session, have died.

Wednesday, Sept. 16.—Morning Session.

Mr. J. W. Thomas, of Norfolk, Va., delegate from the Virginia Pharmaceutical Association, read a paper on the

RELATIONS OF PHYSICIAN AND PHARMACIST,

and exhibited a book of formulæ of standard proprietary preparations, which if adopted by the physicians of the State, would enable home apothecaries to prepare the elixirs, etc.

Dr. Sam'l K. Jackson, of Norfolk, delivered the

PRESIDENT'S ADDRESS,

an abstract of which will be found on page 374.

Dr. Thomas J. Moore, of Richmond, Va., opened the subject for general discussion by a full paper on

SCARLET FEVER.

He recognized the division of the fever generally adopted by American authors as the most practical under which the various types could be described, viz S simplex, S anginosa and S maligna He portrayed fully and with great minuteness the classical types of each, one of these forms being described with particular gracefulness—that of the malignant and irregular type, more completely in regard to prognosis, as the grouping of the various symptoms indicated, anticipative, immediate danger, or those where death was inevitable He traced the history of the disease from the time it was first defined by Sydenham, in 1661, down to the present day The etiology of the fever was extensively discussed, more particularly as to its origin The germ theory was fully entered into, from the time of Pasteur's first suggestions in 1861, down to the present Pollander, Brawell, Davainne, Rayer, Toussaint with Pasteur of France, Koch, Cohn, Virchow, Klebs, Obermeier, Bollinger, Nagle and others of Germany, Tommasi Crudeli of Italy, Burdon Saunderson, and Tyndal of England, were all referred to, and their merits as painstaking and ingenious investigators dwelt upon The success in cultivating and inoculating the special microbes of charbon, chicken cholera, murrain, and other diseases, in the lower animals, with modification of the symptoms, and abatement in the severity of the respective diseases, were described, and the hope expressed that corresponding advances in human *parasitology* may follow close in their wake He stated that up to this time the only germ which has filled all the necessary requirements, as found in man through inoculation and otherwise, is the spiro bacterium of relapsing fever found by Obermier and called after him

The parallelism between small pox and charbon was spoken of, travelling, however, in contrary directions, the one from man to the lower animals, the other from domestic animals to man, the special bacillus of the latter had been discovered through attenuation and inoculation it fulfilled all that the law required of it, like vaccination in small pox, it produced, through inoculation of a remote culture from the virus of the lower animals, immunity in the human family, the peculiar microbe producing the former has not yet been determined, he hoped it would come to light at a day not far distant Continuing, he said that there were two microbes described as giving rise to scarlatina—the *monas scarlatinosum* of Klebs, and the *plox scindens* of Eklund, of Stockholm—each one ingeniously put forward as the true bacillus Klebs does not indulge in the enthusiasm peculiar to confidence—Eklund endeavors to demonstrate the absolutism of his proposition

Dr Moore declared that he did not believe that the special microbe producing this disease had yet been recognized, and the question, to say the least of it, remained undetermined and open The part of the address devoted to treatment was long and exhaustive He carefully described the merits of belladonna—citing the opinions of the homœopathists who had introduced it as carrying out the very essence of their doctrine, with that of the regulars who had partially or completely accepted it He did not believe that the drug possesses prophylactic powers and declared its action indifferent when used to mitigate symptoms during the progress of the disease For the reduction of temperature he preferred the ice cap to the head, and rubber bags over the front of the neck and covering the great vessels (filled with ice or iced water), conjoined with sponging, failing in this he used wet sheets, then cold pack, and as a last resort, the cold bath as described by Ziemssen He never feared the depressing effects of cold water, as patients could always be relieved from impending congestion by free resort to alcoholic stimulation His favorite internal antipyretic up to this time was quinine, administered by rectum or hypodermically when the stomach was irritable He hoped much from resorcin, and urged his brethren to try it and give their clinical experience to the world, the drug was safe, certain in action, and a germ destroyer As an unguent, especially where itching and burning were prominent symptoms, he knew nothing equal to a combination of glycerine, boracic acid, and carbolic acid, in the proportion of one ounce, one dram, and fifteen minims, respectively, in the order named, both the borax and carbolic acid obtunding nervous sensibility He commended the use of unguents generally, they calmed the patient and reduced temperature He thought the use of the spray the best and most efficacious form of applying medication to the throat, and called especial attention to the use of chloral hydrate (two to four grains to the ounce of water), as invaluable for its antiseptic and anodyne powers The same salt possesses, he declared, exceptional merit in controlling convulsions happening in the course of the disease to children, and in such cases is best administered per rectum

Dr Moore also recommended the use of small doses of mercury for a few days, as an adjuvant to diuresis in the dropsy often attending acute desquamative nephritis, where diuretics were not accomplishing the desired end—failing with these means, a resort to hydragogue cathartics was indispensable Jaborandi he had not tried in the fever, fearing too much its depressant effects, the physiological action of the drug being comparatively easy to induce, but difficult to dissipate, or even diminish, when desired Nutritious food from the commencement of an attack, and free stimulation in all cases where the vital powers required sustenance, he regarded, of course, as measures never to be dispensed with

Afternoon Session

The afternoon session was taken up in

THE ELECTION OF OFFICERS

for the ensuing term, with the following results

President —Dr Rawley W Martin, Chatham, Va Vice-Presidents —Drs John S Apperson, Town House, T B Greer, Rocky Mount, and H M D Martin, Fredericksburg Recording Secretary —Dr Landon B Edwards, Richmond, Va Corresponding Secretary —Dr J F Winn, Richmond, Va Treasurer —Dr Richard T Styll, Richmond, Va To deliver Address to Public and Profession 1886 —Dr Hugh T Nelson, Charlottesville Nominated to the Governor as Examiner-at-large on State Board of Medical Examiners (to fill vacancy occasioned by death of Dr F D Cunningham) —Dr Thomas J Moore, Richmond, Va Examiner on State Board from Third Congressional District (to fill vacancy occasioned by resignation of Dr O A Crenshaw) —Dr Hugh M Taylor, Richmond Dr Meade C Kemper, Norfolk, Examiner from Second District Subject for General Discussion during next Annual Session —Puerperal Septicæmia Leader in discussion —Dr L Ashton, Falmouth, Va Place of next Annual Session —Fredericksburg, Va , *about* November 1, 1886

(*To be concluded*)

MISSISSIPPI VALLEY MEDICAL SOCIETY
(Formerly Tri-State)

Eleventh Annual Meeting, held in Evansville, Ind , Sept 8th, 9th, and 10th, 1885

(*Continued from page 355*)

TUESDAY, SEPT 8 —AFTERNOON SESSION

DR E S MCKEE, of Cincinnati, read a paper on

INTRA-CRANIAL CEPHALÆMATOMA

The word cephalæmatoma comes to us from the Greek It is an effusion of blood occurring in newly born infants, forming a tumor in the head The intra cranial variety, the subject of this paper, may be divided into *a*, Those situated between the skull and dura mater *b*, Those occuring in the arachnoid cavity As causes of intra cranial cephalæmatoma may be enumerated most of the causes of the external variety The reception of some injury to the child during parturition for example One can, however, find many instances where the external variety occurred, the labor being light They have been mentioned in breech cases, and in Vienna have been noticed on those whose births were due to Cæsarean section It is quite possible that through the crushing of the parts of the head together during delivery, there occur tearing of the periosteum or dura mater and bone blood vessels This pressure being released, the parts are again suddenly freed, emptied by the diapedesis caused by the crushing which they had undergone, hyperæmia and engorgement are the result of the removal of this pressure The sources of the hæmorrhage are probably the tender blood vessels These enter the bone from the dura mater, and are immediately after the release of the pressure overfilled and ruptured Possibly it might be due to a varicose condition of these vessels, or to the hæmorrhagic diathesis In cases of fracture of the bone cephalæmatoma on the dura mater may be due, only to the hæmorrhage from vessels wounded by the broken edges of bone M Vallier, in his "Clinique des Enfants Nouveaunés," has an engraving which illustrates beautifully the ease with which the blood may be caused to transude through the imperfectly ossified skull of the child The direction of the pressure during labor and the greater porousness of the outer layer of the skull compared with the inner, accounts for the excess of the extra over the intra-cranial variety Pressure, the usual causation of the former is quite adequate, if unusually forcible, to cause the latter

The diagnosis of intra cranial cephalæmatoma depends wholly, of course, on the symptoms of brain pressure, which it is liable to occasion These are twitchings, convulsions, stupor, or paralysis The external variety is of course much more easily diagnosed While the prognosis for the extra cranial variety is good, that for the intra cranial is bad Death occurs most frequently from brain pressure or from necrosis or caries of the bone leading to perforation, thrombosis of the cerebral sinuses, extension of the inflammation to the meninges and brain itself, and pyæmia Idiocy is one of the results of internal cephalæmatoma Dr West is the only one who has observed the cure of internal cephalæmatoma This was very analagous to the repair of the external The effusion became encircled by an osseous ring In one of the two cases noticed by Dr West convulsions came on in fifteen hours and terminated in death in four hours A large quantity of blood was found post mortem beneath each parietal bone The yielding structure of the infantile skull with its unossified sutures, is probably the reason why the effusion of blood upon the surface of the brain does not immediately and universally cause cerebral symptoms In one case of Dr West's all went to prove that the effusion beneath the dura mater must have existed many days before there were any cerebral symptoms

He then reported from the literature in brief twenty cases, one his own, which were all he could find Treatment, as yet, in internal cephalæmatoma has not been attempted, the diagnosis being always made post mortem Possibly there is here a field for the much-abused trephine

LOUIS BAUER, M D , F R C S , England, of St Louis, read a paper on

THE COCAINE HABIT

As a local anæsthetic, the hydrochlorate of cocaine has established its reputation beyond dispute, It is the safest, surest and most agreeable of the local anæsthetics Owing to the demand for knowledge concerning the physiological action of cocaine, and the fact that in a little less than seven months the patient had consumed about 700 grains of cocaine, and at times in very large doses, would seem sufficient to insure your interest and attention

The doctor had observed peculiarities about his patient before called to attend him On seeing that he was an object of interest, the patient avoided him at first, but finally came and told him all The patient descends from a confirmed drunkard At 13 he found whisky alluring, at 25 indispensable On the 9th of last January he had freely imbibed the indispensable beverage The last draught of ardent liquor was a pint of gin He had then just enough to submit to a hypodermic injection of cocaine under the promise that it would relieve him of a rousing headache, and probably quench his appetite for the "fire water" forever Unfortunately, the physician disclosed the name of the remedy, and the patient procured the article himself and used it on his own responsibility Thenceforward he used the cocaine injections, increasing the dose from one fifth to ten grains at a dose, and soon found himself in a condition demanding the continuous use of the drug Small doses of five to ten drops of a five per cent solution produced very mild yet appreciable effects on the patient

The following is an enumeration of the physiological effects

1 That none of the injections caused any inconvenience, either irritation inflammation of the skin, or abscess From the numerous insertions on the side and in front of the abdomen not the slightest mark remained, even recent insertions could hardly be traced

2 A small zone of integument, of which the punctured wound was the centre, showed a noticeable reduction of sensibility

3 The action of the cocaine invariably ensues within fifteen to twenty five seconds, in less than half an hour it is at its height, and within two hours it has almost entirely disappeared, when reaction gradually follows

4 The cocaine obviously exercises its first effect upon the heart, the pulse, ordinarily from seventy to eighty per minute, rises quickly to more than 120, but scarcely ever exceeds 130, it remains regular and shows no intermission, it is of medium size, slightly hard and continuous in that condition and that quality for the first two hours following the application, when it gradually diminishes in frequency and returns to the ordinary standard The patient insisted that intermissions had been frequently experienced by him, and that on locomotion the frequency would greatly augment I was, however, unable to affirm these observations

5 Among the earliest disagreeable symptoms of the patient is a burning sensation of the trunk and a cold and clammy perspiration of the extremities The thermometer did not however, reveal any tangible increase of animal heat, whereas the condition of the extremities was pronounced The temperature of both the mouth and the axillary cavity showed rather a decrease not exceeding one degree

6 When cocaine is in action the skin appears dry and pallid, but the patient avers that a profuse and clammy perspiration would ensue as soon as he assumed a recumbent position, in the latter the respiration becomes laborious, deep sighing and yawning

7 Whilst the moisture of the oval cavity remains undisturbed, the patient complains of a sensation of dryness and difficult deglutition, at one time the movements of the pharyngeal muscles were as painful as inflammation of the tonsil, but a new injection of cocaine removed the symptoms promptly

8 Whilst under the influence the patient is devoid of thirst, and would rather object to drinking any liquid on account of the disagreeable sensation it invariably produces

9 The cocaine destroys the appetite completely during its action, and gives rise to aversion for food, but the appetite returns when the effects have passed off

10 It induces constipation or intensifies the preexisting sluggish condition of the bowels, the latter may continue for a week or longer, and may require repeated large doses of drastic medicines, whereas in his ordinary condition a seidlitz powder would answer to move the bowels, at one time four cathartic pills induced diarrhœa, with painful tenesmus, a new dose of cocaine promptly subdued both

11 The secretion of urine ceases almost entirely for the time being, but returns when the patient comes out of the influence of cocaine

12 The sexual functions are likewise suspended to complete impotency during the action of the cocaine, their vigor returns, however, with rather increased appetite and endurance

13 The senses manifest exaggerated susceptibilities, the patient experiences a ringing in the ears as from quinine, when large doses have been employed, sounds become intensified, as in hydrophobia, without being painful, as in inflammation of the middle ear Light affects the optic nerve to a degree of intolerance, illusions happen, distorting objects, even hallucinations occur without fear or apprehension, the skin assumes a degree of sensibility so as to perceive an ordinary draught of air with the force of a blowing storm These phenomena relating to the senses are, however, exceptional, and only happen under the action of very large doses A common effect on the eye-balls is their prominence and brilliancy, connected with the dilatation of both pupils more so, however, in the left , This effect develops very gradually, appearing towards the end of the action, but extends into the intermissions of succeeding doses

14 Large doses of cocaine give rise to loquacity, notwithstanding that the patient avers difficulty of speech, for reasons already mentioned, his conversation is, however, clear, connected, and congruous with the subject concerned Most remarkable is the ability to remember names, dates, and events I have observed no aberration of the mind at all, it seems to me that the intellectual operations are in no way impaired

15 A few times whilst the patient was under the excessive influence of cocaine he complained about severe pains in his limbs, "electric shocks," as he expressed it, along the brachial plexus, sciatic and crural nerves, although they seemed not to interfere with active and rapid locomotion, they were increased by touch For the last fortnight these symptoms have not recurred

16 Most remarkable is the decided aversion for alcoholic liquors observed ever since the patient commenced to use cocaine in large and excessive doses

The writer thinks the cocaine habit most deplorable, but that cocaine has injured the patient less than excessive alcoholism would have done in the same time He has observed none of those organic disturbances in the patient's system which are so prominent from the abuse of alcohol By comparison, therefore, the former is preferable to the latter Dr Bauer is now trying it with several other patients addicted to alcohol, but has not as yet arrived at any positive conclusions

Dr James H Letcher, of Henderson, Ky, said he had found it necessary to inject the cocaine deeply into the tissues to get more than a very superficial anæsthesia

Dr James C Pearson, of Mitchell, Ind, read a paper on

PATHOLOGICAL CHANGES IN ACUTE AND CHRONIC DYSENTERY

He lamented the fact that in his little community it was impossible to get post mortem evidences of disease, as in the hospitals of large cities, because of popular opinion regarding it Alexander Trolles, some time in the sixth century, under the title of "Dysenteria Rheumatica," described an interesting state between that of inflammation and ulceration of the intestinal mucous membrane, in which shreds of the intestinal pseudo membrane were mixed with the discharges, stating that if protracted the first variety may pass into the second His views or description do not accord with our present knowledge of pathological anatomy On reading the pathology of dysentery we are at once impressed with the idea of its being a local phlegmasia, having the common elements of pyrexia or fever, local hyperæmia and local exudation In grave cases, attended with fever, what relation has the fever to the local affection, or *vice versa?*

Dr Bauer thought that the dysentery came from the constipation He had it twice himself from this cause, and treated many patients for it Instead of being eliminated, fæces corrode and form bad smelling gases Reported a case he had operated upon for stricture of the intestine If unable to obtain a post mortem from the patient's friends, he embalms him free of charge

Dr A C Bernays gave his experience in *Dilating the Rectum and passing the Hand and Arm into it* He reported Simon's views and experience in this operation On being asked if such a procedure was justifiable, he thought it was Being asked what advantage could be obtained, he said the kidneys could be palpated, stone or abnormal growths noticed The liver even could be felt in its lower border, adhesions of the peritoneum could be discovered The hand, he said, was not so crushed as to lose its sense of touch He reported the case of a quart bottle of champagne passing into the rectum of the man who sat upon it

Dr Beard, the President, reported the case of a very large *Fish Bone passing into the Rectum*

Evening Session

Dr J W Beard, in his official capacity, delivered the

PRESIDENT'S ADDRESS

He gave an interesting history of the origin of the Society, an abstract of which we have not space to give

Dr A C Bernays, of St Louis, Mo, read a paper on

NATURAL AND IDEAL CHOLECYSTOTOMY

He related a case of ideal cholecystotomy performed Sept 12, 1884, on Mrs O—r, of St Louis, who had been suffering for seven years almost constantly from biliary colic, with most excruciating pains accompanied with nausea, no jaundice, considerable emaciation, a large movable tumor in the right hypochondriac region Diagnosis impossible Explorative laparotomy He found a very much enlarged gall bladder, the cystic duct occluded by a firmly impacted calculus Punctured by trocar, emptying a clear mucous fluid Then incision and removal of twenty stones The large obstructing calculus was removed through the gall bladder in the same manner after considerable trouble Czerny-Lembert suture of the incision The bladder was dropped back into the abdomen The case progressed favorably, and complete recovery and relief of all symptoms followed The author then gave a careful review of the anatomy and physiology, and some points in the history of the operation on the bladder and ducts, and also descriptive of the operation of cholecystectomy and cholecystenterostomy By *natural cholecystotomy* is meant Sims' operation, which exactly imitates nature in its method of relief By *ideal cholecystotomy* he means the method which aims at immediate *restitutio ad integram* successfully practiced by himself

The paper concludes with the following propositions

1 The symptoms which indicate an operation, opening the system of gall vessels are, *a*, jaundice, *b*, paroxysmal pain, *c*, tumor in the region of the gall bladder *d*, suppuration, *e*, malignant disease, being either jointly or singly recognizable

2 Obstruction of the common duct is no contraindication of cholecystotomy, but we may often save life by its early performance

3 The incision in the linea alba must be preferred to the one parallel to the one in the free margin of the ribs, when the diagnosis is in doubt regarding the seat of the obstruction

4 Explorative laparotomy must be preferred to acupuncture or aspiration as a diagnostic measure

5 The escape of bile through an abdominal fistula is not injurious to the process of normal digestion The bile is an excretion, and probably has no more use in the intestinal canal than the urine in the bladder

6 Three operations are justifiable in the treatment of biliary obstruction They are cholecystotomy, ideal and natural cholecystectomy, and cholecystenterostomy

7 The operation of *ideal cholecystotomy* is indicated when the bladder and ducts are normal, and when all the ducts have been cleared of obstructing material

8 Natural cholecystotomy is indicated when the bladder is diseased, or when an obstruction is found to be immovable

9 Cholecystectomy should be limited to malignant disease of the gall-bladder Cholecystenterostomy cannot yet be classed among the legitimate procedures

Second Day—Morning Session

Dr L D Brose, of Evansville, Ind, presented a case of tient procured the article himself and used it on his own responsibility Thenceforward he used the cocaine injections, increasing the dose from one fifth to ten grains at a dose, and soon found himself in a condition demanding the continuous use of the drug Small doses of five to ten drops of a five per cent solution produced very mild yet appreciable effects on the patient

The following is an enumeration of the physiological effects

1 That none of the injections caused any inconvenience, either irritation, inflammation of the skin, or abscess From the numerous insertions on the side and in front of the abdomen not the slightest mark remained, even recent insertions could hardly be traced

2 A small zone of integument, of which the punctured wound was the centre, showed a noticeable reduction of sensibility

3 The action of the cocaine invariably ensues within fifteen to twenty five seconds, in less than half an hour it is at its height, and within two hours it has almost entirely disappeared, when reaction gradually follows

4 The cocaine obviously exercises its first effect upon the heart, the pulse, ordinarily from seventy to eighty per minute, rises quickly to more than 120, but scarcely ever exceeds 130, it remains regular and shows no intermission, it is of medium size, slightly hard and continuous in that condition and that quality for the first two hours following the application, when it gradually diminishes in frequency and returns to the ordinary standard The patient insisted that intermissions had been frequently experienced by him, and that on locomotion the frequency would greatly augment I was, however, unable to affirm these observations

5 Among the earliest disagreeable symptoms of the patient is a burning sensation of the trunk and a cold and clammy perspiration of the extremities The thermometer did not, however, reveal any tangible increase of animal heat, whereas the condition of the extremities was pronounced The temperature of both the mouth and the axillary cavity showed rather a decrease not exceeding one degree

6 When cocaine is in action the skin appears dry and pallid, but the patient avers that a profuse and clammy perspiration would ensue as soon as he assumed a recumbent position, in the latter the respiration becomes laborious, deep sighing and yawning

7 Whilst the moisture of the oval cavity remains undisturbed, the patient complains of a sensation of dryness and difficult deglutition, at one time the movements of the pharyngeal muscles were as painful as inflammation of the tonsil, but a new injection of cocaine removed the symptoms promptly

8 Whilst under the influence the patient is devoid of thirst, and would rather object to drinking any liquid on account of the disagreeable sensation it invariably produces

9 The cocaine destroys the appetite completely during its action, and gives rise to aversion for food, but the appetite returns when the effects have passed off

10 It induces constipation or intensifies the preexisting sluggish condition of the bowels, the latter may continue for a week or longer, and may require repeated large doses of drastic medicines, whereas in his ordinary condition a seidlitz powder would answer to move the bowels, at one time four cathartic pills induced diarrhœa, with painful tenesmus, a new dose of cocaine promptly subdued both

11 The secretion of urine ceases almost entirely for the time being, but returns when the patient comes out of the influence of cocaine

12 The sexual functions are likewise suspended to complete impotency during the action of the cocaine, their vigor returns, however, with rather increased appetite and endurance

13 The senses manifest exaggerated susceptibilities, the patient experiences a ringing in the ears as from quinine, when large doses have been employed, sounds become intensified, as in hydrophobia, without being painful, as in inflammation of the middle ear Light affects the optic nerve to a degree of intolerance, illusions happen, distorting objects, even hallucinations occur without fear or apprehension, the skin assumes a degree of sensibility so as to perceive an ordinary draught of air with the force of a blowing storm These phenomena relating to the senses are, however, exceptional, and only happen under the action of very large doses A common effect on the eye-balls is their prominence and brilliancy, connected with the dilatation of both pupils, more so, however, in the left, This effect develops very gradually, appearing towards the end of the action, but extends into the intermissions of succeeding doses

14 Large doses of cocaine give rise to loquacity, notwithstanding that the patient avers difficulty of speech, for reasons already mentioned, his conversation is, however, clear, connected, and congruous with the subject concerned Most remarkable is the ability to remember names, dates, and events I have observed no aberration of the mind at all, it seems to me that the intellectual operations are in no way impaired

15 A few times whilst the patient was under the excessive influence of cocaine he complained about severe pains in his limbs, "electric shocks," as he expressed it, along the brachial plexus, sciatic and crural nerves, although they seemed not to interfere with active and rapid locomotion, they were increased by touch For the last fortnight these symptoms have not recurred

16 Most remarkable is the decided aversion for alcoholic liquors observed ever since the patient commenced to use cocaine in large and excessive doses

The writer thinks the cocaine habit most deplorable, but that cocaine has injured the patient less than excessive alcoholism would have done in the same time He has observed none of those organic disturbances in the patient's system which are so prominent from the abuse of alcohol By comparison, therefore, the former is preferable to the latter Dr Bauer is now trying it with several other patients addicted to alcohol, but has not as yet arrived at any positive conclusions

Dr James H Letcher, of Henderson, Ky, said he had found it necessary to inject the cocaine deeply into the tissues to get more than a very superficial anæsthesia

Dr James C Pearson, of Mitchell, Ind, read a paper on

PATHOLOGICAL CHANGES IN ACUTE AND CHRONIC DYSENTERY

He lamented the fact that in his little community it was impossible to get post mortem evidences of disease, as in the hospitals of large cities, because of popular opinion regarding it Alexander Trolles, some time in the sixth century, under the title of "Dysenteria Rheumatica," described an interesting state between that of inflammation and ulceration of the intestinal mucous membrane, in which shreds of the intestinal pseudo membrane were mixed with the discharges, stating that if protracted the first variety may pass into the second His views or description do not accord with our present knowledge of pathological anatomy On reading the pathology of dysentery we are at once impressed with the idea of its being a local phlegmasia, having the common elements of pyrexia or fever, local hyperæmia and local exudation In grave cases, attended with fever, what relation has the fever to the local affection, or *vice versa?*

Dr Bauer thought that the dysentery came from the constipation He had it twice himself from this cause, and treated many patients for it Instead of being eliminated, fæces corrode and form bad smelling gases Reported a case he had operated upon for stricture of the intestine If unable to obtain a post mortem from the patient's friends, he embalms him free of charge

Dr A C Bernays gave his experience in *Dilating the Rectum and passing the Hand and Arm into it* He reported Simon's views and experience in this operation On being asked if such a procedure was justifiable, he thought it was Being asked what advantage could be obtained, he said the kidneys could be palpated, stone or abnormal growths noticed The liver even could be felt in its lower border, adhesions of the peritoneum could be discovered The hand, he said, was not so crushed as to lose its sense of touch He reported the case of a quart bottle of champagne passing into the rectum of the man who sat upon it

Dr Beard, the President, reported the case of a very large *Fish Bone passing into the Rectum*

Evening Session

Dr J W Beard, in his official capacity, delivered the

PRESIDENT'S ADDRESS

He gave an interesting history of the origin of the Society, an abstract of which we have not space to give

Dr A C Bernays, of St Louis, Mo, read a paper on

NATURAL AND IDEAL CHOLECYSTOTOMY

He related a case of ideal cholecystotomy performed Sept 12, 1884, on Mrs O—r, of St Louis, who had been suffering for seven years almost constantly from biliary colic, with most excruciating pains accompanied with nausea, no jaundice, considerable emaciation, a large movable tumor in the right hypochondriac region Diagnosis impossible Explorative laparotomy He found a very much enlarged gall bladder, the cystic duct occluded by a firmly impacted calculus Punctured by trocar, emptying a clear mucous fluid Then incision and removal of twenty stones The large obstructing calculus was removed through the gall bladder in the same manner after considerable trouble Czerny-Lembert suture of the incision The bladder was dropped back into the abdomen The case progressed favorably, and complete recovery and relief of all symptoms followed The author then gave a careful review of the anatomy and physiology, and some points in the history of the operation on the bladder and ducts, and also descriptive of the operation of cholecystectomy and cholecystenterostomy By *natural cholecystotomy* is meant Sims' operation, which exactly imitates nature in its method of relief By *ideal cholecystotomy* he means the method which aims at immediate *restitutio ad integram* successfully practiced by himself

The paper concludes with the following propositions

1 The symptoms which indicate an operation, opening the system of gall vessels are, *a*, jaundice, *b*, paroxysmal pain, *c*, tumor in the region of the gall bladder, *d*, suppuration, *e*, malignant disease, being either jointly or singly recognizable

2 Obstruction of the common duct is no contraindication of cholecystotomy, but we may often save life by its early performance

3 The incision in the linea alba must be preferred to the one parallel to the one in the free margin of the ribs, when the diagnosis is in doubt regarding the seat of the obstruction

4 Explorative laparotomy must be preferred to acupuncture or aspiration as a diagnostic measure

5 The escape of bile through an abdominal fistula is not injurious to the process of normal digestion The bile is an excretion, and probably has no more use in the intestinal canal than the urine in the bladder

6 Three operations are justifiable in the treatment of biliary obstruction They are cholecystotomy, ideal and natural cholecystectomy, and cholecystenterostomy

7 The operation of *ideal cholecystotomy* is indicated when the bladder and ducts are normal, and when all the ducts have been cleared of obstructing material

8 Natural cholecystotomy is indicated when the bladder is diseased, or when an obstruction is found to be immovable

9 Cholecystectomy should be limited to malignant disease of the gall-bladder Cholecystenterostomy cannot yet be classed among the legitimate procedures

Second Day—Morning Session

Dr L D Brose, of Evansville, Ind, presented a case of

FRACTURE OF THE SKULL

The patient, a child, while at play in the street Oct 12, 1884, was kicked in the head by a work horse heavily shod, and picked up wholly unconscious The doctor, in company with Dr W D Babcock, saw the child one hour after the accident He was still unconscious, had a rapid, feeble pulse, and widely dilated pupils Beneath the scalp was much effusion of blood just in front of the anterior fontanelle There was a lacerated wound, but no fracture of the bone beneath Along the right parietal eminence there was another lacerated wound, and a probe introduced here passed rapidly into the cranial cavity and revealed a single fracture of the right parietal bone, with much separation of fragments The prognosis was made that the child would live but a short time Nothing further being indicated, we applied cold cloths to the head and gave a few drops of brandy The next day the patient regained consciousness and was able to talk, but had complete paralysis of the left side of the face and left arm and leg, above each eye a bluish ecchymosis was noticed, but no subconjunctival hæmorrhage Fever, great restlessness and irritability occurred Bromide of potash, ten grs every two hours, was prescribed, and the cold applications were ordered continued On the third day the temperature became normal On the sixth a chill and fever occurred On consultation an exploratory incision was determined upon to liberate the retained pus, to see if there was depressed bone and liberate the same The incision revealed the presence of a depressed part of the parietal bone The adhesions to the dura mater were severed and the bone removed with the forceps The fragment embraced both tables of the skull, was wedge-shaped, with apex posterior, and about two inches in length Much pus escaped from the cortex of the brain after the incision The entire length of the fracture could now be examined with the finger The patient suffered very much from the operation, and was pulseless In four months the boy had recovered fully his former health and activity An opening still exists in the skull which by actual measurement is three quarters by five and three-quarters inches in its greatest measurement in the middle of the parietal bone Pulsation is distinctly seen through the cicatrix

Dr R W Amidon, of New York, in the *Philadelphia Medical News*, gives a good indication for opening the skull An injury of the vault, the marks of external violence, however slight, provided there be coma, aphasia, hemiplegia or hemi spasm of the lower part of the face of the arm or leg, all three constituting hemiplegia, whether or not accompanied by chills, fever, headache or vomiting General epileptic convulsions do not constitute so good an indication for operation Every case of compound fracture of the skull, whether there be cerebral symptoms or not, cases in which, after the lapse of months, or years even, unmistakable symptoms follow an injury of the head, atrocious and uncontrolled headache, particularly if localized, monoplegia, hemiplegia, seizures of general epileptic attacks, if they have an aura pointing to a localized lesion In addition to the bone the dura mater should be opened in all cases where exploration with a hypodermic needle discloses the product of a purulent inflammation, or a great deal of fluid under it In all cases in which a serious brain lesion is suspected, but cannot be proven otherwise

There are two conditions which, when present, demand an immediate resort to the trephine One is when the fracture is of limited extent and when there is reason to think, from the situation or the occurrence of monoplegia, monospasm or hemiplegia, that a splinter from the inner table may have penetrated the motor tract of the cerebral cortex The other case is one in which compression is caused by an accumulation of blood between the dura mater and cranium Such an accumulation may result from a wound of the larger venous sinus, but in the great majority of instances it depends on a wound or laceration of the middle meningeal artery The accident is most frequently accompanied by compound fracture, but it may be met with in cases of simple fracture, and occurs when no fracture is present In compound fracture, he believes that the trephine is to be recommended while the depression is marked but not of great superficial extent, and in all cases of punctured fracture where there is reason to suspect that the external plate is extensively splintered or depressed He is strongly opposed to active interference where the fracture is of great extent, and where the depression is not limited or abrupt He thinks that in many cases success will be attained by a careful antiseptic treatment of the wound, such as is recommended by Lister in the management of compound fracture of the lower extremity

DR WM A BYRD spoke concerning trephining He advised that it be used only in cases where spiculæ of bone were penetrating into the brain Do not let it start up inflammation He has had very good results with the trephine The last ten years have changed materially the surgery of the brain and skull

DR LOUIS BAUER said that fracture of the skull is simply reduced to this question Is there any pressure on the brain which is mechanically removable? We exhumed the body of a man hung in St Louis four years ago, and on examination, found the head smaller than his age and development would warrant We found the brain asymmetrical, flattened on one side and premature ossification of the bones of the skull The man was evidently in a state of semi-idiocy Irresponsible, he killed a man with a big stone, having no provocation I am satisfied that through his hanging, a judicial murder was committed He reported the case of an epileptic, very sullen, with other symptoms Found microcephalon Trephining was decided upon We took out two buttons and the intermediate ridge He improved wonderfully recovering completely his mental and physical health We have a new rôle for the use of the trephine He would not hesitate one instant to remove everything which interferes with the movement of the brain He discussed trephining for osteo myelitis What is more reasonable or rational than to make a hole in the bone and let it out?

DR A W BRAYTON, of Indianapolis said Dr

Bauer has reported cases which should come before a jury of medical experts He reported cases from Indiana, where judicial murder had been committed by a jury of farmers

Dr Joseph Eastman, of Indianapolis said how many children receive an injury in early life, and later become epileptic, insane, idiotic, and reach the asylum, possibly the scaffold! We must carefully consider these injuries and not trust too much to conservative surgery

Dr Chas Knapp, of Evansville, reported a case which occurred in his city The patient fell from a bridge a great height and with great force It was a case of much interest on account of the great force taken to fracture the skull It was found necessary to operate He thinks if there are symptoms of compression we should cut down Patient made good recovery except slight paresis of the limbs

Dr H H Clark, of Danville, Ill, asked if there was any change in the temperature of the boy Dr Brose replied that he had observed none Dr Clark advised that he be carefully watched for several years

Dr Brose, in closing, said he had hoped that some one would take up the subject of cerebral localization He explained that there was danger of depression of the parietal bone on pressure in the case he presented

Dr Edward Borck, of St Louis, read a paper on

ABDOMINAL SURGERY WITH REPORT OF CASES

At a former meeting of this Society, in this city, in 1879, the doctor read a paper before it entitled "Ovarian Tumors, at what Stage of the Disease is the proper time to Operate?" This was followed by a very interesting and instructive discussion One surgeon believed in the waiting plan He lost twelve patients in succession Another surgeon agreed with him in regard to waiting, and had the courage to say he had lost thirteen patients in succession Only one stated that he operated as early as he was able to make a diagnosis and his patient would let him He lost about sixty-six per cent of his cases He still adhered to his views then expressed in favor of an early operation, and to day he is able to sustain what was then his theory by experience

In March, 1878, he had his first case of ovariotomy A multilocular ovarian tumor in a lady 55 years of age, from the country He was advised to operate under the guidance and with the assistance of one who had operated, consequently he asked Dr Louis Bauer, of St Louis, to assist him The cyst was only of three months duration, and, all other surgeons who had been consulted, advised the waiting plan and against an operation at present The patient recovered

His second case was a lady, æt 43 He removed a large ovarian cyst from the right side together with the uterus, having had a cyst removed from the left side seventeen years previously, she died Next, a simple cyst of the left side in a young Miss æt 14, last stage, she also died But we learn much from our unsuccessful cases and eight successful cases followed The next case, ovarian cyst accompanied with cancer, was lost The next twelve cases recovered ' He then lost a case simple cyst, last stage Then followed a similar case which also died Out of the succeeding twenty-five cases he lost but one, a colored lady This makes fifty cases from March, 1878 to May, 1884, with five deaths These cases were divided as follows

Simple cysts	8
Cysts of the broad ligament	2
Ovarian cyst with cancer	1
Ovarian cyst with removal of uterus	1
Persistent pain in ovary, removal, cystic degeneration	1
Fibro cystic tumors	6
Oligo and polycyst, etc	31

These cases were all in private practice, all but five of them operated on in their own homes, and they were distributed in several States With the exception of those that died the cases were all early operations The youngest æt 14 years, oldest 60 years In two cases drainage tubes through the abdomen were used, in one a drainage tube through the vagina In these cases there was much surface bleeding In all the other cases the abdomen was closed The pedicle was dropped into the abdomen in every case In one case, a simple cyst, it was found necessary to open the abdomen again on the third day on account of internal hemorrhage The clotted blood was washed out and the wound closed again She recovered ' In this case he was led to use the cat gut ligature He will never use it again It is the doctor's custom to remain with his patients until they are out of danger, sometimes from three to six days He was not able to say what influence the air and malaria of Missouri had upon such patients, but it must have changed (?) since 1878, for other surgeons too were having brilliant success of late

Now when we know that the average life of a patient afflicted with ovarian tumor is four years, that polycysts terminate fatally in twelve months, oligocysts in twenty-four months after the third stage has begun, he draws the following conclusions 1 That those cases operated on in the extreme last stage die 2 That the comparatively early operations were successful 3 That there is no absolute need to send your patient off to a hospital or private institution if she is at all comfortable at home I always advise those gentlemen who attend my lectures, as well as others, to do as I do Take care of their own patients if they have the confidence in themselves to do so, but, if they do, by all means give their patient all their time and attention, and be well prepared for all emergencies

It has been intimated to me more than once, that I must pick my patients I will freely and openly admit that I do There are certain cases which I seem to know intuitively will turn out fatally These I avoid, for there must be the utmost hope and confidence on both sides

Here he related a case he had seen in Illinois, where he would have operated on Saturday, when he first saw the patient, as she was willing, but he was not prepared She would *not* permit an operation on Sunday, so it was deferred until Monday Being in the last stages she died Sunday night He thought an operation here perfectly justifiable Successful cases are reported from all over the country, even in small towns In the near future this will be considered a minor operation But how few fatal cases do we see reported I have seen many fatal cases in this country, not one of which was reported My friends say I pick my cases I would call it a judicial discrimination between cases, and recommend all who begin to do the same One thing my friends cannot say that I hide my fatal cases Every one of them has been published at once and in detail, and I will publish every other case I happen to have in the future for the benefit of all Since 1878 I have seen and examined on an average about twenty-five cases of abdominal enlargement per year, and I have not, in a single instance, made an exploratory incision for diagnostic purposes, though justifiable in many doubtful cases, and as a rule safe I do not believe in the practice of opening every woman's abdomen because it is easier to make a diagnosis I prefer the more difficult manner without the knife Whenever I should be in doubt, and have to resort to an exploratory incision, it would be with the distinct understanding to go on with the operation at once if such were indicated

DR BYRD had made a number of ovariotomies He never lost a patient if the tumor weighed less than thirty pounds He referred to picking patients Certain patients will die When you see little varicosities over the body it shows that the tissues are relaxed, that suppuration and peritonitis will intervene and the patient will die

DR EASTMAN questioned why is it that European operators are so much more successful than American? It is not in the air, and not in the patients It is a very important question to decide When shall we operate? Do not wait until the woman is weary of life I am not in favor of waiting any longer than to improve the general health of the patient No difference if the tumor is small, so much the better Lawson Tait says his patients come to him much earlier now than formerly Hence his better results He does not pick his cases The doctor referred to his opinions as expressed before the Indiana State Medical Society, and published All men can look back and say, " I do believe now, with my present experience, I could have saved that case "

DR H H CLARK, of Danville, Ill, has done nine ovariotomies, and has had two deaths Is confident that he could have saved one of those two with his present experience The tumor weighed forty-seven pounds Large tumors are not desirable for an operation He advocated early operations

DR LOUIS BAUER thought that there was nothing to be gained by delay The tumor interferes with general health, what can be gained by delay? Dr Borck is to be congratulated upon his courage in reporting his unfavorable cases

DR ARCH DIXON, of Henderson, Ky, reported the case of a woman he had operated upon, with a tumor the size of a head The case went without fever for nine days He then removed the sutures and found a little pus The temperature rose slightly He washed out the pus and the temperature fell to normal He also reported a second case

DR BYRD said the gentleman has discussed the present aspect of the case For the last five years he has used torsion in all operations except ovariotomies He has not had the courage to use it in this operation, but it has been used by Sims He may some day become prominent enough to do this in ovariotomy, he is now too young He has opened the abdomen seventy eight times and lost eight patients Do not put irritating material in the form of sutures in the abdomen and leave them there, they inevitably cause much trouble

DR BORCK, in closing, said he thought it well to send cases to the specialist, but if he dies, what then? New men must be coming on all the time He taught his students to perform their own ovariotomies He thinks Dr Byrd correct, that torsion can be used in this operation He thinks it proper to use the cautery after removing the secreting membrane

(*To be concluded*)

NECROLOGY

DR ROBERT McQUEEN GIBSON

This promising young physician was born in Troy, N Y, July 5, 1854, and died at the residence of his parents, in Portsmouth, O, July 3, 1885, lacking two days of being thirty one years of age He was the son of George and Isabella Gibson After attending the Portsmouth High School he began the study of medicine, and attended two courses of lectures at the Ohio Medical College At the close of his second course, and after a rigid competitive examination, he was a successful candidate for an Interneship at the Cincinnati Hospital for one year, which closed in March, 1877

Soon after this he associated himself with his preceptor Dr C M Finch, in Portsmouth, O, for the practice of medicine and surgery This partnership in time was severed, and the Doctor began practice for himself, erecting an elegant office on the corner of Fourth and Washington streets

Being well prepared and zealous in the performance of his professional duties, he soon acquired a large and growing practice, and throughout his life he retained the respect and confidence of the community and of his professional brethren He was a zealous and efficient worker in the local medical society, the Hempstead Academy of Medicine, was a member of the Ohio Valley Medical Association, the Ohio State Medical Society, and of the American Medical Association Early in March last, he was attacked with acute pleurisy resulting in empyema For four months he bore up bravely, and when told death was inevitable, he calmly replied that "it was all right," and that he hoped that he would not linger Death came to his relief at high noon, the city loosing a valuable citizen, and the medical profession a shining member

At a called meeting of the Hempstead Academy of Medicine, suitable resolutions were drawn up, the hall was draped for six months, and the Fellows agreed to attend the funeral obsequies in a body The remains were taken to Schenectady, N Y, for interment

DR JAMES H SNODGRASS

James H Snodgrass, M D, of Pittsburgh, Pa, was born in Washington County, Pa, and died in Hospital at Philadelphia, Pa, July, 1885, in his 53d year After acquiring a good academic education he began the study of medicine with Dr A M Pollock, in the city of Pittsburgh He attended the usual courses of medical lectures at the Jefferson Medical College, Philadelphia, where he received the degree of M D in 1866 Dr Snodgrass was fortunate enough to effect an arrangement with his preceptor, and at once began practice with him, which was continued to their mutual satisfaction for six or seven years His health, which was never robust, failed, and finally disease of the brain supervened some two years ago He was receiving treatment at one of the best institutions in the country at the time of his decease

Dr Snodgrass was a member of the Allegheny County Medical Society, the Pennsylvania State Medical Society, and a member of the American Medical Association since 1872 The Allegheny County Medical Society, at a special meeting held for the purpose, passed appropriate resolutions on his death

ASSOCIATION ITEMS

INFORMATION OF IMPORTANCE TO ALL MEMBERS OF THE AMERICAN MEDICAL ASSOCIATION

To the Editor of the Journal

Dear Sir —The notices which I send to members for payment of their annual dues bring to me so many inquiries as to the rules and customs of the Association, that I have deemed it advisable to call the attention of all your readers, as briefly as possible, to their responsibilities to the Association, viewed from my standpoint as Treasurer

Membership —Every one who attends an annual meeting of the Association as a delegate pays at that time five dollars, and thenceforward becomes a Permanent Member He continues as such as long as he remains in good standing in the body from which he was originally sent as a delegate As a Permanent Member, he must pay *Five Dollars Annually*, when notified by the Treasurer, whether he attends the meetings of the Association or not Payment of annual dues entitles him to receive the weekly Journal of the Association for one year

Members by Application are such as have not become Permanent Members in the manner above indicated, but apply to the Treasurer for membership, forwarding at the same time to him five dollars and the certificate of the President and Secretary of their State or local society, that they are in good standing in such society They pay five dollars annually thereafter, when notified by the Treasurer Members by application can join the Association at any time, and they receive regularly the weekly Journal

When Dues are Payable —The annual dues from Permanent Members are payable to the Treasurer at the time of the annual meeting of the Association, or immediately thereafter The payment entitles the member to receive the Journal for one year from the following July Payment for 1885, for example, entitles the member to the Journal from July, 1885, to June, 1886, inclusive

As some of the members have not yet forwarded to the Treasurer their dues for 1885, they are urgently requested to do so at an early day Having entered upon another year of membership, they are morally and legally responsible to the Association for the payment of their annual dues, having already received for three months of the new year—1885—the Journal of the Association

Subscriptions to the Journal, from those who are not members of the Association, should be forwarded to the office of publication, 65 Randolph Street, Chicago, and not to the Treasurer, but *all payments of annual dues must be forwarded to the Treasurer, Lock Box 1274, Philadelphia*

Deaths —When a member of the Association, who is in regular receipt of the Journal, dies, his family or other representatives are requested to inform the Treasurer at once of the fact

Payment of Dues for Previous Years —As a few members of the Association are still in arrears for payment of dues for 1883 and 1884, they are requested to forward at once to the Treasurer the amounts for which they are indebted to the Association

Transactions of the Association —These annual volumes, thirty-three in number, to 1882 inclusive, may still be obtained, with few exceptions, from the Treasurer, at reduced prices The Index to these volumes will be forwarded on receipt of *One Dollar* An opportunity is thus afforded to complete sets of these valuable publications, or to obtain important papers and works which are daily becoming scarce

Yours respectfully,

Richard J Dunglison, M D, *Treasurer*

Sept 25, 1885 Lock Box 1274, Philadelphia, Pa

MISCELLANEOUS

The American Public Health Association —The thirteenth annual meeting of this association, which numbers nearly 1000 members, will be held in Washington, D C, December 8, next, and is likely to continue in session a week

The local committee intrusted with perfecting arrangements for the meeting, which includes transportation and entertainment for the members of the association and place for holding the sessions, is as follows Dr Smith Townshend, chairman, J C McGinn, secretary, Dr J S Billings, U S A, John M Brown, U S N, Wm P Dunwoody, national board of health, Hon John Eaton, sr, Prof John Gamgee, Drs A Y P Garnett, A R Gihon, U S N, Walter Gwynn, Dr Chas H H Hall, U S N, C G Hirndon, U S N, Adrian Hudson, U S N, Mr E S Hutchinson, Drs J H Hidder, U S N, William Lee, George B Loring, De Witt C Patterson, Stephen O Richey, Charles Smart, U

S A , Thos J Turner, U S N , J M Toner, P S Wales, U S N , Ralph Walsh, Charles H White, T S Verdi, Mr Samuel A Robinson, and Dr D E Salmon

At a meeting of the committee, held at the health office on the 9th ult , a quorum of the members was present Dr Townshend announced that Dr Gihon had resigned the chairmanship of the reception committee, and that Dr Toner had been appointed in his stead

Dr Walter Gwynn, chairman of the committee on transportation, being compelled to be absent from the city, also resigned, and Mr Hutchinson was substituted, being transferred from the chairmanship of the finance committee, and the chairmanship of the latter committee was filled by the selection of Dr Patterson

The committee on reception will consist of twenty-five members, to be appointed by the chairman of the local committee upon consultation with the chairman of the reception committee The enlargement of the committee is left discretionary with the chairman

Mr Robinson, from the committee on securing a hall, reported that they had consulted the proprietor of Willard's and in consideration of the hotel being the headquarters of the visiting delegates, he would give the association the use of the hall free of charge, also the use of the hotel parlors for committee rooms Mr Staples, in addition, offered reduced rates for such of the delegates as became guests of the hotel The offer was accepted

Messrs Percy Smith, of the Baltimore and Ohio Railroad Company, Frank Trigg, of the Chesapeake and Ohio Railroad Company, and E J Lockwood, of the Shenandoah Railroad Company, being present, a general discussion in regard to reduction of rates was indulged in, but no definite action was taken

On motion, no subcommittee was authorized to create any indebtedness without the approval of the general committee The meeting adjourned subject to the call of the chairman

---

DR PAUL BORNER, editor-in chief of the *Deutsche Medicinische Wochenschrift*, died in Berlin on August 30, of acute peritonitis

DR L LUNIER, one of the founders, and the Secretary of the Association Française contre l'Abus des Boissons Alcooliques, died on September 5, at the age of 63 years

---

NEW YORK STATE MEDICAL ASSOCIATION —The first annual meeting of the Fifth District Branch will be held in Brooklyn, at the Mansion House, Hicks street, between Clark and Pierrepont streets, at 11 A M , on Tuesday, October 13, 1885 The following are the subjects of the papers

"Suggestions in regard to the Causation and Treatment of Acute Coryza," by AUSTIN FLINT, M D

"Further Observations on Diphtheria," by W H THAYER, M D

"The Physician and the Pharmacist—their relative duties," by J P GARRISH, M D

Report of a "Case of a Railroad Accident," by WM GOVAN, M D

Remarks on "The Milk Supply of Large Cities and the Improper Mode in which it is Conducted," by H A POOLER, M D

"Progress of Electrolysis in Surgery," by ROBT NEWMAN, M D

This being the annual meeting, a full attendance is especially desired Lunch can be obtained in the Mansion House on reasonable terms

J C HUTCHINSON, M D , *President*
E H SQUIBB, M D , *Secretary*

SURGEON-GENERAL OF THE MARINE HOSPITAL SERVICE —The President has decided not to make a change in this department, and has therefore declined to accept the resignation of Dr John B Hamilton, which was recently tendered to take effect on November 1st

---

M DUJARDIN-BAUMETZ, in a communication to the Academie de Médecine, states that it is an error to suppose that India-rubber cloths used in dressings are hurtful

---

WILLIAM AUGUSTUS GUY, the eminent English physician, and author of a number of medical works, died recently in London

---

SUCCESSOR WANTED

To a property and practice located in a beautiful Adirondack village—elevation 1700 feet above tidewater—popular and very favorable resort for lung patients and dyspeptics

An unusual opportunity to the right man Best reasons for selling, and all particulars on receipt of stamp Ready capital required, $1000 to $3000

Address DOCTOR,
Drawer A, Bloomingdale, Essex Co , New York

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE *MEDICAL* DEPARTMENT U S ARMY, FROM SEPTEMBER 19 1885 TO SEPTEMBER 25 1885

PROMOTIONS

Lt Col T A McParlin, Asst Medical Purveyor, to be Surgeon with rank of Colonel, to date from Sept 16, 1885

Maj B J D Irwin, Surgeon, to be Asst Medical Purveyor with rank of Lt Col , to date from Sept 16, 1885

Capt B F Pope, Asst Surgeon, to Surgeon with rank of Major, to date from Sept 16, 1885

APPOINTMENTS

Edward R Morris, to be Asst Surgeon with rank of First Lieutenant to date from Sept 17, 1885

Capt F C Ainsworth, Asst Surgeon, from Dept Texas to New York City, for duty as recorder of the Army Medical Examining Board (S O 214, A G O , Sept 18, 1885)

Capt Wm C Shannon, Asst Surgeon, granted leave of absence for four months, to take effect about Oct 1 (S O 115, A G O , Sept 19 1885)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING SEPTEMBER 26 1885

Dungan, J S , Medical Director, waiting orders

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY
Vol V CHICAGO, OCTOBER 10, 1885 No 15

ORIGINAL ARTICLES

THOUGHTS ON SOME POINTS CONNECTED WITH PNEUMONIA[1]

BY W P HART, M D,
OF WASHINGTON ARK

My object in this article will not be to follow the old beaten path in an essay on the subject of pneumonia Every standard author on the practice of medicine has furnished us with his chapter, while almost countless monographs have appeared on this subject While there is almost universal consent and agreement given to our teaching upon the subject of pneumonia and its treatment as a whole, yet upon some vital points there is not such happy accord and harmony While it would be profitless to attempt a review of our vast literature upon this subject or compile an essay therefrom, yet a few moments spent in the discussion of some doubtful points in regard to which there still exist diverse and conflicting opinions, may yield results of practical importance

First, is pneumonia simply an inflammation of lung tissue, purely local, or is it a constitutional disease with this local manifestation?

Secondly, should general blood-letting or venesection ever be resorted to in its treatment?

Thirdly, are blisters ever indicated or permissible in the treatment of pneumonia?

Fourthly, does this disease ever present a stage or condition in which belladonna is indicated and is the sheet anchor to the patient's life?

My remarks on these topics will not be for the sake of theorizing or for theoretical discussion, but to try, with the lights and experience we have, to arrive, if possible, at results and conclusions of the most vital and practical clinical importance to patients suffering of this malady And *first*, as to the nature of pneumonia, it is not a matter of indifference whether or no we entertain correct views, because upon those views will be based our practice, unless we propose, without reason or science, to adopt an empirical, hap hazard treatment, which is not complimentary to the practitioner, and should not be satisfactory to his patient Unless we propose to place ourselves upon the same dead level and plane with charlatans, we must first inform ourselves as to the work we have in hand No workman ever undertakes to perform a piece of work with certainty and success until he has informed himself as to the nature of that work No practitioner of medicine can propose to himself or promise his patient to treat any disease rationally and intelligently until he has learned the nature or character of that disease

Our predecessors for many long years viewed pneumonia as simply inflammation of lung tissue, and the spoliative treatment adopted by them was in keeping with those views And even now there are physicians who hold to the same pathological ideas If pneumonia be simply inflammation of lung tissue, and, *vice versa*, inflammation of the lung be pneumonia, certainly it should be treated antiphlogistically, just as it was treated fifty years ago, by blood-letting, purging, and a general depressant course But the frightful mortality attending this treatment is a fearful commentary upon it If the then prevalent and accepted idea of the nature of this disease (simply lung inflammation) was correct, the treatment they adopted, based upon that idea, was rational and scientific, and the mortuary statistics should have been very different and far more satisfactory The fatality attending this antiphlogistic treatment was simply appalling Even within my own recollection, to hear that a patient suffered of winter fever, as it was vulgarly called, was to learn that he, probably, had one foot already in the grave And so it continued until J Hughes Bennet called a halt, and adopted a conservative, expectant and supporting treatment, since which time the mortality has been reduced 250 to 500 per cent These results alone should be sufficient to convince us that either our ideas of the simple inflammatory nature of the disease were erroneous, or else, that anti inflammatory treatment is a delusion and farce

But putting aside these deductions, let us study for a little time a case of pneumonia prior to onset The attack is usually announced by a chill, most generally during the night, which lasts a longer or shorter time from a few minutes to several hours in duration, which is immediately followed by constitutional symptoms of greater or less severity the heart's action is accelerated and excited, as indicated by the number, force and power of its beats, the body heat is increased, the temperature running from a little above the normal to 104° or 105° F, with other symptoms corresponding At the onset of this chill there was none, at most but little, congestion even, much less inflammation of the lung What caused that paroxysm? Could it have been the effect of lung inflammation which, as yet, did not exist? If the chill announced the pneumonic attack, and at that time there was no lung inflammation present to produce that chill, how can we conceive that it was the effect or result of such inflammation? There was a cause producing that chill, there was no inflammation of the lung to produce it, hence it could not have been the effect of such inflammation. I have heard the suggestion advanced by the adherents of the local nature of the disease, that pneumonitis was an inflammation *sui generis*, peculiar and exceptional in consequence of the tissue involved. But, I would ask, is not simple, uncomplicated inflammation, whenever and wherever developed, identically the same, only modified and qualified, as to its activity or chronicity by the higher or lower organization of the structures involved? And when, in the course of an attack of pneumonia, the lung inflammation has been developed, wherein, I would ask, is it peculiar, or does it differ, as shown by its manifestations and symptoms, from inflammation in other structures or localities? The first stage, in which congestion and engorgement—the precursors of inflammation—are taking place, lasts on an average from twenty-four to forty-eight hours. Then follows the second stage—that of exudation or effusion and solidification—in which all the essential phenomena of inflammation are developed. But how was it possible that the earlier features and symptoms of the attack should have been the result of inflammation, which, until this time, was not and could not act as a cause, because it did not exist? Just as well say that the eruption of measles, scarlatina, or small-pox, that makes its appearance from the second to the fourth day of the fever, is the disease of which it is merely the manifestation. Would you say that a person suffering of the fever of rubeola did not have measles until the fourth day of that fever, when the eruption manifested itself? What sickened the patient from the outset but the measles? and what was the eruption but the outward expression of it? The eruption—the local inflammation—is the manifestation of the constitutional malady.

---

[1] Read before the State Medical Society of Arkansas, April 22 1885

Again, if the lung inflammation be the make-up and the whole of pneumonia, the gravity and intensity of the symptoms should have a direct and exact ratio to the extent and quantity of lung tissue involved. But from clinical observation and experience we know that this relation does not obtain. How often have we seen *great constitutional disturbance at the onset* and in the early stage, when physical signs gave evidence of but slight injury to the lungs? And in the sequel of the same case, when convalescence is about to set in and all the graver constitutional symptoms are yielding, the most marked evidences of lung troubles exist. The patient is convalescent because he has passed the crisis in his constitutional disease, and not because the lung inflammation—its local expression—is relieved, and the lung is soon convalescent for the same reason. Instead of the symptoms holding a direct relation to the extent of lung tissue involved, Flint, Sr., says, and the clinical observations of all of us confirm his views, that "the affection of an *entire* lung does not always give rise to symptoms denoting great gravity of disease. The febrile movement is not always intense and may be slight, the respirations may be but little increased in frequency, cough and expectoration may be not only not prominent, but even wanting, and the system may be but little disturbed. These remarks will also apply to double pneumonitis." How could this be if the lung inflammation were the sum total of the disease? Bartholow says "there is a growing belief that pneumonia is a constitutional disease. It differs from other inflammations in that it is self-limited, and terminates by crisis." These are features, I suggest, that characterize no ordinary inflammation. Fothergill says: "It is now generally recognized that pneumonia presents in itself no special indications for treatment." Again: "There is no treatment for pneumonia in itself." Why, I would ask? Is this true of ordinary inflammation? Is it not treatable and amenable to treatment? Verily so, but the lung inflammation in pneumonia is the attendant, the effect, the sequel of a disease, definite and certain in its course, and that terminates in a crisis just as certainly as measles, small-pox, or any other of the eruptive fevers, and is no more amenable to treatment or cure than they. This is Fothergill's idea, as I gather it. Again he says: "Our ancestors bled to death's door, while Rososi gave huge doses of tartar emetic. More recently J. Hughes Bennet has adopted the expectant treatment with liberal supplies of food. Every new remedy almost, in turn, is tried for pneumonia, and found to be followed by a large per cent. of recoveries, but in how many cases the recovery is rather in spite of, than in consequence of the treatment employed, is a doubtful question." And the same remark is applicable to other constitutional diseases with local manifestations, but never to simple, uncomplicated inflammation.

With the lights now before us we can realize and appreciate the mistakes made by physicians half a century ago in their attempts to cure pneumonia. Their effort was to strangulate, to jugulate, to cut short and cure the lung inflammation, not understanding and comprehending the true nature of the disease, and the result was the fearful mortality that attended this treatment. True, some patients recovered from the effects of this spoliative treatment, but it was because their vital powers were so strong and elastic that they reached a favorable crisis in spite of the doctor's well-meant, but ill-advised medication. And although physicians may still differ as to the nature of the disease, there is a marked sameness in their treatment. Even those who hold to the local nature of pneumonia, while they discard and ignore their most efficient and powerful agencies for its subjugation and cure,—to-wit, the antiphlogistic regime, they anxiously wait and look for the anticipated crisis, when the patient will pass through and make a safe landing upon the shores of convalescence. Now, instead of trying to master and drive nature, we content ourselves with watching and meeting exigencies as they may arise, until our patient shall have had time to get well, which will be the result in a vast majority of simple, uncomplicated attacks of pneumonia.

It is of the first importance, then, that we clearly recognize the true nature of pneumonia, and that it is not simply a curable inflammation to be jugulated by antiphlogistics, and thus, in our efforts to cure, thrust ourselves in the face of nature and thwart her means of restitution, but that it is a constitutional, self-limited disease that will run an exact, definite course, and terminate, most generally, in a favorable crisis, unless, by our meddlesomeness, we constitute ourselves the slayers instead of the rescuers of our patients

Should general blood-letting or venesection ever be resorted to in the treatment of pneumonia? If so, when and under what circumstances? These are questions of vital importance to every practitioner who is called upon to treat this disease, especially alarming and fatal, when viewed from the standpoint of fifty years ago If pneumonia be simply inflammation, we possess no agency so potent and prompt for its subjugation as the lance, but the great fatality that attended its indiscriminate employment was so shocking and appalling that it was finally almost totally abandoned, and for the last quarter of a century or more, it has been looked upon, by the vast majority of the profession, as the opprobrium of the healing art, and especially in the treatment of pneumonia, and to be dreaded more than the disease itself Is this right and as it should be? Because an agent—potent for good when discreetly and scientifically employed—is abused, is that sufficient cause why it should be totally discontinued and ignored? What, under the same ruling and judgment, would become of every prominent article in our materia medica? yea, of every bounty and blessing with which nature has supplied us? If formerly we bled too much, too frequently, too copiously, and too indiscriminately, is it not certain that we do not bleed enough at the present time? Because the attempt to cure pneumonia with the lancet proved a failure, is that conclusive evidence that it should never be employed as a temporary expedient or auxiliary in the treatment of that disease? I have been arguing against the idea that pneumonia was simply, and nothing more than, lung inflammation, and *a priori*, against a general and constant antiphlogistic régime that would be required to meet and combat it, yet do not cases sometimes arise in which the lance is not only permissible, but imperatively demanded? Prof Flint says, "Its employment is warranted when there is high febrile excitement, the heart's action being increased in force and power, and the patient of a robust or plethoric constitution" Unless some vital organ, previously weakened, be seriously threatened under the above conditions (and if such there be, the lance, I imagine, will be impotent for its salvation), I totally dissent from the above teachings, because pneumonia is not a curable inflammatory disease, but is definite, self-limited, and tending to a favorable crisis, while the effect of bleeding is spoliative, certainly and inevitably aggravating the very dangers that beset the patient later in his disease And because further, we possess other means and agencies with which, in ordinary cases and under ordinary circumstances, as indicated by Prof Flint, we can obtain quite all the good results promised by the lancet, without its serious spoliative effects, to which our patient may succumb at the very time when he should pass a favorable crisis

Without delaying to argue it I submit this broad, general proposition, that, in this latitude and climate, with their multifarious unending, debilitating and enervating causes, unless it be in exceptionally rare cases, venesection is never demanded or permissible to combat and control high inflammatory symptoms in pneumonic patients When reaction has been established and inflammation developed, there is no further indication for the lance, even if there had been any previously But there is a condition in which I have seen patients[1] die that I believe might have been saved by the lance if it had not been interdicted and prohibited by the ghastly horrors that cluster about its point in the minds of physicians, patients, and friends, and in which, should I ever see patients again, I will use the lance, though their lives, and my reputation and standing as a physician, may flow out and away with the venous current That condition is, when congestion is overwhelming, and the heart is about to be drowned in its own blood There is no accomplished inflammation as yet, but the patient's every organ and symptom indicate the most immediate and imminent danger, and I know of nothing half so likely as the lance to procure him the needed respite and relief The condition is that of great depression and prostration, characterized by general stasis and capillary congestion, and we can readily understand and comprehend how the relief is obtained The patient is dying under the first fell stroke in the congestive stage of his disease

The heart, the lungs, and every vital organ is being submerged and drowned, while his sensibility is so deadened and paralyzed that he is unconscious of his real condition He will tell you that he is not suffering, is not sick much, but will be well in a day or two, and is astonished if his watchful and observant physician expresses any apprehension as to his condition I have seen patients and friends die thus, and once, in just such guise, death invaded my own home circle The ordinary remedies and appliances having failed, what would you do in such a case? What will, if anything, avert the effects of this first dire stroke? I have searched my standard authors and journals in vain for an answer Not one of them even alludes to such a condition But the most of us, I imagine, at least the older members of the profession, have seen such cases, and we have tried and seen tried, fruitlessly and in vain, the whole routine of remedies and agencies usually employed in such cases Should not the lance be resorted to in such a case, in the hope that it might give new motion and life to the almost stagnant current? I have never resorted to venesection myself, nor am I acquainted with any physician who has, to relieve this condition, but everything else having failed, and death coming speedily on, should it ever be my misfortune to meet such cases again, which I pray God forefend, I will try the lance as a last hope, as a *dernier ressort* If then my patient dies I would have a conscience void of offense, knowing that I had exhausted the last resource in my efforts to save Except this condition, I know of none other in attacks of pneumonia demanding or permitting the use of the lancet

---

[1] In the Medical and Surgical Reporter of March 14 1885 I find an article by Dr Hiram Corson of Conshohocken Pa upon the Hygiene of the Aged' in which he refers very forcibly to this exact stage and condition, and suggests venesection for its relief

Our third inquiry is, are blisters ever demanded or permissible in the treatment of pneumonia? Here again we have quite a diversity of opinion and practice, arising mainly, I have no doubt, from a lack of positive and definite knowledge of the therapeutical effects of counter irritants "Ubi irritatio ibi fluxus" was the idea that obtained in the mind of the medical profession long years ago, and acting upon that idea counter-irritants were called into use There is a pretty general agreement in sentiment and practice as to the beneficial effects of counter irritants, excepting vesicants or blisters, but here there are conflict and diversity of opinion , If they are to be employed at all in the treatment of pneumonia, what are the indications demanding them, and in what stage of the disease? In the first stage, while congestion and engorgement are taking place, putting aside the annoyance and disturbance that necessarily attend their use, can they promise or accomplish anything more than mustard or other counter-irritants, in conjunction with warmth and moisture? If so, how? This is not the stage of the disease in which it is claimed, by those who believe in their beneficial effects, that they should be employed Prof Flint says, "blisters are not advisable on account of the general disturbance which they are apt to occasion, and their interference with physical examinations of the chest " I think this objection weak and insufficient, and, the latter part of it, unworthy its great author, because it would not be right to deprive a patient of the benefit that an agent or remedy might afford him, merely because it deprived us temporarily of part of our examination Prof Flint is a wonderful success and prodigy in the art of auscultation and percussion, and by these means can lay bare the conditions and workings of the thoracic organs as clearly as if they were exposed to the natural eye, but I think his protest against blisters, as stated above, more like an objection than a reason Fothergill says, "The utility of blisters in pneumonia is doubtful The advocates of such a plan have failed to furnish convincing evidence of the beneficial effects produced thereby " Bartholow says, "Counter irritation is useful during the stage of congestion, but a fugitive counter irritant, such as a mustard plaster, is all that can be properly used When the crisis occurs a blister is very useful " Although this last declaration may be true, the question naturally arises, how does he know it to be so?

Why is there such discrepancy among these authors on this subject? I can account for it only on the hypothesis, as stated before, of a want of definite and positive knowledge as to the action of these agents *During the stage of solidification and hepatization*, and about the crisis—the time when it is claimed they exert their most marked beneficial effects—we cannot account for their action upon the *proposition that where there is an irritation there is* a fluxus or flow, because the affected lung is already anæmic in consequence of the deposition having blocked up the vessels and deprived it, mechanically, of the usual amount of blood It is hepatized and solidified, the vessels ramifying it are clogged and blockaded, and consequently there is less blood in it than in health Hence, the object of blistering cannot be to divert or draw the blood from the solidified lung which it does not contain We must then look for some other explanation of their beneficial therapeutic effects in such cases, if really they produce such, and here, in the present state of our knowledge, we are at sea By what means a timely blister in cases of pneumonia, applied just as the patient approaches his crises, works its good results, whether through reflex nervous action, stimulation or otherwise, I know not, but that I have observed good results from the use of such a blister, and seen it assist greatly the patient to pass a favorable crisis, I firmly believe Yet, as the disease is self limited and terminates in a crisis, the same results might have occurred without the blister But feeling conscious that I have observed similar good effects from the use of blisters when applied in diseases that were not self limited and wont to terminate by crisis, I feel disposed to attribute the good results, in both instances, to the same agent, to wit, the blister

The fourth and last, but by no means the least important of my queries, is, does pneumonia ever present a stage or condition in which belladonna is indicated and is the sheet anchor to the patient's life? There is no allusion to it, as such, in any works upon practice, or in medical journals, at least I have made search, in vain, for something on this subject If I have ever seen or read anything upon the use of belladonna in the treatment of pneumonia, I have entirely forgotten it, and consequently can remember nothing of the ideas or suggestions contained therein Yet there is a stage and condition that sometimes comes up in the course of this disease in which, if anything, belladonna is the sure and only anchor to the patient's life When is the stage, and what are the conditions that indicate its employment? It will be observed that I restrict its use to a certain stage and to certain conditions, the stage is the period just preceding the crisis, and the conditions such as the following Frequency, or not and feebleness of the heart's action, a feeble, frequent and labored respiration, great dyspnœa rapidly tending to apnœa, pupils contracted almost to a point, in some cases a pale and cadaveric, in others an asphyxiated or cyanotic appearance of the patient, especially of the lips and extremities, the skin is relaxed and pouring out the patient's life, while the kidneys are refusing to perform their proper functions of waste elimination, and the mental faculties are being dethroned, either by violent and active or low muttering delirium While all the above symptoms will, probably, not manifest themselves in any one case, there will be enough of them to indicate great prostration and failure of the vital organs

What will we do for our patient in this condition? Opium, quinine, alcoholic stimulants, digitalis, nux vomica, ammonia, counter irritants with warm applications have all, or in part, been employed, and still your patient goes from bad to worse Now is the time for the application of the fly blister we say, but we can't tell why or how, and we employ it empirically, believing and hoping that it may do good in some unknown and mysterious manner, but still our patient is not relieved. What is the difficulty that these agencies have not wrought the desired and anticipated results? If we can determine that difficulty and then find some agent to meet it, then, instead of standing helpless and impotent with folded hands, watching our patient until life shall steal away from him, we can, with confidence and boldness, step in and rescue him. As stated before, the symptoms and conditions indicate great and general prostration. The nervous, circulatory, respiratory, and capillary systems are all depressed. In a word, there is an alarming loco blood-pressure present. The vaso motor nerves that supply the brain, heart, lungs, skin, and every vital organ in the economy, and contract their blood vessels, thus keeping up the normal blood pressure, are stunned, deadened, and partially paralyzed, while their antagonists, the vaso inhibitory or trophine nerves, are dilating these vessels, thus bleeding *the patient to death into the capillary* vessels of his own body at the expense of the proper blood supply to the vital organs, which are comparatively exsanguined and anæmic.

In consequence of the paresis of the vaso motor nerves, and the consequent absence of their contractile influence upon the blood vessels, coupled with the dilating influence of the vaso inhibitory nerves, the following conditions will necessarily be developed. Partial stagnation of the circulation, and undue amount of blood in the capillaries with sluggish motion and lowered blood-pressure, with all their attendant phenomena. Are not these the exact conditions with which we are brought face to face in the case of our patients? If now we can find some agent that will stimulate the brain and excite and arouse the vaso-motor nerves to their proper action and at the same time control their antagonists, the vaso inhibitory nerves, then we are prepared to meet the exigencies and demands of the case. I don't propose to say that we shall not employ auxiliaries, nor do I propose that belladonna is specially indicated except in the exact stage and under the peculiar conditions indicated above.

Now, let us examine the physiological effects of belladonna upon the system, and I am indebted solely to Prof. Bartholow for a discussion of these effects, as the account of belladonna and its physiological effects, as given by the U. S. Dispensatory, is insignificantly brief and worthless. And first as to the brain. The cerebral effects of large doses of belladonna are decidedly and markedly stimulating, as manifested by headache, vertigo, illusions, hallucinations, delirium, and even somnolence. The delirium may be gay and laughing or busy, or it may be noisy and furious, the patient fighting and striking all who approach him. In lethal doses convulsions may occur, or profound stupor may result after a period of delicious excitement. Under certain circumstances a tetanic action, very similar to that of strychnine, is developed. Belladonna, by virtue of its inviting a greater than normal transmission of blood through the tissues, increases metamorphosis, and the results of this are manifested in an increased diminution of waste products. So you will observe that it is a powerful stimulant and excitant to the nervous system, its effects even simulating and approximating those of strychnine. Upon the circulation its action is remarkable and unique. Its first and immediate effect is to slower the heart's action, but a rapid increase in the number of pulsations quickly follows. Not only is the number of the heart beats increased, but there is a corresponding increase in their vigor and form also, and the area over which the pulsations are distributed is enlarged. It has been conclusively proven that the increased action of the heart is due, first to stimulation of the cardiac ganglia of the sympathetic, and secondly, to a paralyzing action the pneumogastric terminal filaments. In other words, the motive power of the heart is increased in activity and force, and the inhibiting control is lessened. The stimulation of the vaso motor centres by belladonna is not confined to the cardiac ganglia, but extends to the vaso-motor ganglia throughout the body, and a general rise of blood pressure takes place, owing to contraction of the arterioles. It is a singular fact that the decided influence of belladonna rapidly produces a state of over excitation. Upon the function of respiration belladonna increases the number and depth of respiratory movements, but the increase is not in the same ratio as is the character of the pulse-beat. *The more rapid action of the heart*, the immense respiratory movements, and the contraction of the arterioles, result in an increased supply of blood to the periphery, more rapid nutritive changes and consequent elevation of temperature.

Do these physiological effects not meet and fulfil as nearly as possible the indications in our patient's case? And not theoretically or empirically, but rationally and scientifically, as the established and demonstrated effects of the drug? I recommend it in the condition indicated, not because some practitioner or experimenter employed it in a similar case and concluded it produced good results, as is the case with too many of our therapeutic agents, chief among which are blisters, but because its effects have been observed and proved, and we know that the article that will produce these effects must be beneficial in controlling and counteracting the symptoms in the condition indicated. We use it scientifically and rationally, not ignorantly and empirically. Blisters recommend themselves clinically, belladonna recommends itself physiologically and therapeutically. These are my views upon the action and utility of belladonna in the condition and under the circumstances indicated, and I wish I was able to elaborate and confirm them by a greater number of clinical cases than I have. It is but recently that my attention was directed to this article in such conditions, and I have but few cases to report in which its virtues have been tested.

Case 1.—Mr. R. H. P., white, 52 years of age, rather feeble and delicate physically, with an hereditary taint of tuberculosis in his family, several brothers and a sister having died of that disease, had a violent attack of pneumonia of the right lung, March 13, 1884 The attack was ushered in with a chill in the night of the 13th, and I was called to see him the following morning His case pursued the ordinary course under the present and approved treatment until the sixth day of his attack I proposed then to apply a fly blister, to which he earnestly objected on account of some preconceived prejudice On the morning of the sixth day of his attack his condition and symptoms were those of alarming depression and prostration, in spite of the soothing, supporting and stimulating measures I had employed with him His pulse was weak and feeble, but not rapid, his respirations were rapid, forty-two to the minute, shallow and labored, attended with great dyspnœa tending to apnœa, his lips, face and extremities were asphyxiated and cyanotic, and his skin relaxed and perspiring profusely In a word, there was great prostration of all the vital organs, with its attendant phenomena Would a fly blister have relieved him? I doubt it, for I don't know how it could have done so, and I have seen it fail of relief in so many similar cases But being acquainted with the physiological effects of belladonna, it occurred to me that they would meet the indications fully and exactly I put him upon four drop doses of the fluid extract of belladonna every four hours, and after three or four doses all of his alarming symptoms yielded, and in due time he passed a favorable crisis and made a good recovery

Case 2 [1]—"W A , white, age 45 years, was seen by me Nov 5, 1884 Condition, acute pain in right side, pulse 100, temperature 102° F Diagnosis pneumonia Put him upon the usual treatment, gave quinine every four hours in five gr doses, whisky, opiates and heart-sedatives Case took the usual course until about the fifth day, when great difficulty of breathing came on by spells at which times he had to be raised up in the bed to breathe, the perspiration pouring off of him I put a large fly blister over his side and put him upon carbonate of ammonia and digitalis Seventh day, condition unchanged, same treatment continued Blister drew well and was well filled I told the friends of Mr A I saw no chance for him, but would put him on the belladonna, as suggested by my friend Dr Hart Began the treatment on the evening of the eighth day Ninth day, condition much the same, except he had no more spells of difficult breathing and was not sweating He went into a typhoid condition, but finally got well"

I would suggest that, if the belladonna had been employed in this case on the sixth day, when the symptoms indicating its use first manifested themselves, its effects might have been more marked and decided I would suggest, also, that the surroundings of this patient were of the most unsatisfactory nature even the house in which he was sick being so open that it did not protect him against the changes and inclemencies of the season, and Dr Corrigan may congratulate himself upon being able to steer him safely through his attack

Case 3—"Saw Mr W on the 26th of December, 1884 White, age 59 Had been sick for a week and treated by Dr M , who, he said, had gone off on a spree could get no well authenticated account of what he had taken Present condition, pulse 120, temp 105° F , skin soft, cough very troublesome, spitting up frothy, bloody sputa Breathing rapidly Diagnosis pneumonia of left lung, the right did not seem to be involved Ordered large poultices over left lung, put him upon ten gr doses of quinine, alternated with ten drops laudanum, ten drops ergot F E , and five drops fluid extract of belladonna, to be given three hours apart He had spells of difficult breathing that came on every four hours I did not see him in one of those spells, but I considered the case a bad one, first, on account of his previous bad health, second, on account of his age, and third, because of the bad surroundings and previous treatment In consequence of high water overflowing the creeks, and inclement weather, I did not see him again until the 30th Treatment had been kept up as I directed, and on my second visit I discharged him He made a good recovery

"In both of these cases," continues Dr Corrigan, "I consider that belladonna acted well, and, judging from past experience in similar cases, I think both these cases would have died if it had not been for the belladonna"

Case 4—(Reported by Dr S M Corrigan) "January 30, 1885, I was called to see Mrs W age 33, white, who had a chill the previous day, followed by acute pain in the right side, diagnosis pneumonia involving entire right lung Pulse 98, temp 104° F Put her upon the usual treatment, but without apparent benefit She gradually grew worse until the morning of the sixth day, when her temp was 103½° F , pulse 90 and feeble, patient very restless, breathing difficult and labored, skin not acting properly, the expression haggard and anxious, all indicating a speedy fatal termination of the case At the suggestion of my friend Dr Hart, I put her upon the fluid extract of belladonna, four drops every four hours When I made my visit next morning, patient living four miles from town, to my great surprise and delight, I found her greatly improved, temp 101½° F , pulse 100, skin acting nicely, face of a rosy hue, had passed a good night, and, to use her own words, she said, 'Doctor, I am going to get well now, feel like I will be up in a few days' Continued treatment, and in due time my patient passed a favorable crisis I attribute my success in this case to the belladonna, I have used it in several other cases with decided benefit"

It may be objected that the apparent good results obtained in these cases were merely coincidences, and to establish the claims of this agent in the conditions indicated, a more extended and thorough experimental and clinical test must be employed The charge would be good and the insufficiency of the meagre statistics given admitted, if its beneficial effects in such conditions come to be established and proven by statistics, but I don't propose to base its merits and claims upon experiments clinical and empirical, but upon its known determined and established physiological actions and effects, which as certainly attend upon and follow its administration as effects follow causes Again, if belladonna is capable of producing the beneficial results I claim for it at this dangerous and critical stage of pneumonia, it is thrice welcome as coming to our help and relief at the very moment when other agencies have failed us, and our patients most need assistance In many instances, probably, the most prompt and effective action would be obtained by the use of atropia hypodermically And I would not limit it to cases of pneumonia, but extend its application to other diseases, should such a combination of symptoms arise as to demand an agent capable of producing the complex and powerful effects that follow the use of belladonna

---

[1] I am indebted to Dr A N Corrigan for the report of cases 2 and 3 and to Dr S M Corrigan for that of case 4

TETANUS[1]

BY WM A BYRD,

OF QUINCY ILL

Next to hydrophobia, I know of no isolated non-epidemic disease more dreaded by both the physician and patient than tetanus, a disease much more common in some districts than others, although the localities may be very near each other I wish to call attention to the two distinct beliefs in its nature One that it is humoral and zymotic, the other that it is a condition of reflex nerve irritation Now if it was zymotic in its origin, it should follow a more fixed course of symptoms than any cases that I have seen, or had the pleasure of reading the records of Take our well known zymotic diseases, and we know the different stages come on regularly and progress with a certain precision in all cases There may be cases much milder than others, but we never expect to see a case of small-pox end in a week or to commence without certain definite initial symptoms

Such is not the case with tetanus The initial stage may be all the way from half an hour to three weeks or even longer The other view, that it is a reflex nervous trouble, may be substantiated by the irregularity of the time that passes for the disease to manifest itself What the changed condition of the nerves is at the seat of the injury has not as yet been ascertained, but I cannot refrain from thinking that pressure has something to do with it In all the acute cases that I have seen, there has been an undue degree of tumefaction existing in the wound, and in the chronic cases the cicatrix has been unusually dense In all the acute cases that I have seen, it has been my practice to incise freely in the neighborhood of the initial lesion, removing, if I think necessary, some of the tissue to allow for swelling, then I have kept the patient under the influence of chloral hydrate and bromide of potassium to relieve them of the agony that they endure, and for the purpose of acting permanently upon the spinal cord, I have, at the suggestion of the late Dr John T Hodgen, given large doses of Fowler's solution In a case which occurred in Quincy, a few years ago, the patient had his hand mashed, in a little while, tetanus set in He suffered most excruciatingly, the opisthotonos was extreme, he was bathed in perspiration, and the lifting of the window curtain to let in more light, or a heavy step on the floor, or a draught of air striking him would cause him to beg piteously for some one to kill him and put him out of his misery I gave him twenty drops of Fowler's solution every two hours for over a week, watching carefully all the time for any symptoms of arsenical poisoning, that they might be met at once No such symptoms appeared, and he made a good recovery, and is now driving his team daily on our streets

A few weeks after I had discharged him, I was called to see a young laborer who had had his foot pierced by a large splinter Lock jaw set in, and, though not to severe, as in the first case, I put him on the same treatment In two weeks he was greatly improved but exposed himself on a cold rainy day, had a relapse and died

In regard to the method of treating chronic tetanus perhaps it will be just as well to report a case that was one more interesting, to me, than any I have ever known The morning of July 18th, I met Dr M Rooney, the physician to St Mary's Hospital and he informed me that there was a case of tetanus at the hospital that had entered as a case of paralysis, from a diagnosis that had been made at one of the public institutions in St Louis He further stated that the man had received an injury on the head When I reached the hospital, I found a well nourished man, about 35 years old, with set jaws and spasm of all the muscles of the body He stated that three weeks before, while working on a bridge he fell, striking a stone and inflicting a wound over the right eye The wound soon healed, but in about ten days he began to get stiff, could not walk well, had difficulty in chewing his food, and at night would have spasms of the general muscles, with excessive perspiration This becoming worse, he went up to St Louis, where his trouble was pronounced paralysis Having friends in the North, and the outlook being so gloomy, he determined to make his way to them, but when he got to Quincy, he felt so much worse he stopped at a hospital

The case was a plain one of tetanus The scar on the eyebrow showed that it was recent and also that it involved the superior orbital notch He was put under an anæsthetic, and the cicatrix cut out As soon as the bone was reached a fracture was discovered I applied the trephine, removed the injured bone, and dressed the wound As he recovered from the anæsthetic he vomited, and having by some means swallowed some large pieces of beef's liver, they could not pass through his clenched teeth, so they took the next best direction, that of the least resistance, and went down the trachea Then there was confusion, the attendants all declaring that the man was dead, and so he seemed Right then I began to have a deep and abiding sympathy for the surgeon that loses his patient during an operation I was utterly unprepared for a tracheotomy, with the exception that I had pressure artery forceps and tenacula out of the case, as also a scalpel I quieted them by telling them that it would take the man at least a minute to choke to death, and that as I could perform tracheotomy in half a minute, that we had plenty of time I picked up the scalpel and laid the trachea open for at least an inch below the cricoid cartilage, incising the superior thyroidal vessels The flow of blood was appalling, but passing my finger into the trachea so as to lift it and the accompanying tissues, I seized the vessels on either side of the cut *en masse* with pressure forceps, and stopped the hæmorrhage at once We then proceeded to get the liver out of the trachea, which we easily did by holding the wound open with tenacula The mass of liver was fully as large as my whole thumb After clearing out the trachea, I inserted two sutures on each side of the wound in the trachea to the edges of the skin, and fastened the ligatures to pieces of adhesive plaster, and drew them back over the shoulder so as to hold the wound gaping, a method introduced by one of the greatest and most original surgeons America has ever claimed, the late Dr Henry A Martin, of Boston I digress here, to call your attention to this method of performing tracheotomy, because I have performed tracheotomy, and had the nurse, a physician, fall asleep and allow the tube to become blocked up with mucus and strangle the patient That event has given me a horror of tubes in certain conditions

---

[1] Remarks before the Mississippi Valley Medical Society Sept 9 1885

The patient was put upon chloral and five drops of Fowler's solution every two hours In three or four days erysipelas set in and involved nearly his whole face That lasted for about a week, when he got better In about two weeks he was so much improved, that I changed him into a convalescent ward His bed was so placed that he was in a draught The next morning when I came to the hospital, he was suffering with acute laryngitis, and I found it necessary to reopen the trachea to allow him to breathe Not being prepared to hold the trachea open as before, I took two hairpins and bent them into the letter S shape, and by fastening tapes to one hook and putting the other end of the hook in the trachea, and tying the tapes behind the neck, I succeeded admirably in holding the wound open That looked so much like barbarous surgery, that I brought out a large tracheotomy tube in the afternoon, and taking the hairpins out, replaced them with the tube, but when the patient would cough, it would cause the mucus to block the tube and he would not tolerate it, but made me take it out and replace the hairpins These he wore for about a week, when the inflammation in the larynx having subsided, they were taken out and the wound quickly healed He went on to a perfect recovery and was discharged from the hospital well, September

P S —Since writing the above, Frank Cason, a 5 year old son of Robert B Cason, living nine miles west of La Grange, Missouri, has been brought to me suffering with tetanus, the result of a fracture of the skull from the kick of a horse, over the outer side of the orbital eminence The fracture was undetected and the flesh wound healed Ten days afterward he exhibited strange symptoms, and the physicians that saw him pronounced it a case of paralysis When I saw him I detected at once, lockjaw from depressed fracture of skull September 18, just two months after the first operation, I cut down through the scar, at St Mary's Hospital, with the assistance of Drs Rooney, Woods, Rook and several medical students, and took out a depressed fragment of bone as large as the last joint of my little finger The child is doing very well, being better as soon as he was from under the anæsthetic

ABSTRACT OF A PAPER ON THE SUCCESSFUL TREATMENT OF LACERATIONS AND FISSURES OF THE OS UTERI OF LONG STANDING WITHOUT SURGICAL OPERATION[1]

BY BEDFORD BROWN, M D,

OF ALEXANDRIA VA

During the past twelve years the writer has embraced every opportunity to test various means for the purpose of devising some method of treating these injuries successfully, without resort to operations A very large proportion of females suffering from these afflictions have neither the means nor the opportunity of seeking the aid of the specialist The writer believes that he has perfected a simple method which can be used by all practitioners of intelligence for the treatment of these cases successfully with time and care without the necessity of operation The agents resorted to in this method are entirely of a local character

Concealed fissures are often found after labor in the mucous membrane of the cervical canal, and are the cause of an infinite amount of local disease in the form of endocervicitis, hypertrophy of the adjacent tissues, inflammation of the submucous fibrous tissue, leucorrhœa, and often painful menstruation One of the most usual seats of these fissures is at the internal os Here the mucous membrane and submucous structure is split through, often to a considerable depth The rent here, as in the case of fissure of the rectum, will remain as a source of trouble for years

It is highly probable that these concealed fissures are the prime cause of a very large proportion of the cases of cervicitis and their consequences, found in women who have borne children The No 1 solution of nitrate of silver reaches these wounds effectually, stimulates a new action, and heals them from the bottom readily

With a view of promoting the healing of the open lacerations and fissures, however small, which act as a centre for the radiation of morbid influence, I have tested every standard agent as a local remedy—Churchill's tincture of iodine, Battey's solution, pure carbolic acid, iodoform, chromic acid, solid nitrate of silver They all failed signally to promote healing and closure of the laceration The application of the solid nitrate of silver invariably acted as a violent irritant, increasing inflammation, pain, discharge and hæmorrhage Finally a solution of crystals of nitrate of silver, graduated so as to adapt it to the particular parts to be applied, and the various stages of progress, was used The effects of this agent proved that lacerations and fissures of long standing and the most aggravated character, complicated with great degree of inflammation, hypertrophy, subinvolution, and a certain degree of pelvic cellulitis, were curable An experience in the use of this agent in about twenty cases of lacerations and fissures, from the slightest to the most aggravated form, treated in the past ten years, shows conclusively that the most extensive wounds (many of them bilateral), have been made to heal and close up permanently The os and cervix have invariably been reduced to their natural appearance and dimensions without contraction

---

[1] Read before the Medical Society of Virginia Sept 17 1885

The treatment requires for completion from six to twelve weeks It can be resorted to regardless of the presence of hypertrophy, inflammation, cellulitis, or subinvolution The solutions employed were of three different grades

SOLUTION NO I

℞ Argent Nitratis (cryst) ʒss
Aq distil f℥i M

This is the form to be applied to the interior of the cervical canal, which is always in a state of catarrhal inflammation arising from the laceration or fissure which penetrates it The remedy is applied down to the os internum by means of a silver or whalebone probe, wrapped with absorbent cotton

SOLUTION NO 2

℞ Argent Nitratis (cryst) ℈iss
Aq distil f℥i M

This solution is to be applied, or rather freely painted, over the external surface of the os and cervix uteri, by means of a large camel's hair brush, including the cavity of the laceration and granulating surface, until the whole presents the appearance of a grayish white coating The application usually gives no pain, but rather acts as a soothing or sedative agent, protecting the exposed sensitive branches of the torn nerves and the tender granulations The coating will often remain from one to three days While the remedy acts as a protective, it also acts as a mild but decided stimulant, to develop a new and more vigorous growth and a more healthy action Thus underneath this coating of silver the processes of healing and filling up the gaping wounds and the formation of a healthy cicatrix are in active operation

At this stage the remarkable action of the remedy is manifested in the reduction of engorgement, in stimulating the process of absorption, and in removing all hyperplastic deposit and hypertrophy By changing the morbid action in the wounded part, and affording an impervious coat, it suspends the absorption of septic matter and interrupts the action of the cause of cellulitis, which gradually subsides under its influence The silver applied in this manner never acts as a caustic or destructive agent, but only as a stimulant to vital action

SOLUTION NO 3

℞ Argent Nitratis (cryst) ʒiss
Aq distil f℥i M

Solution No 3 is not only designed to be applied to the external surface of the cervix uteri, after the healing and closure of the laceration have been completed, but also when there remains a degree of hypertrophy or hyperplasia, or ordinary engorgement, accompanied with induration A solution of this grade will generally reduce these conditions and leave the cervix soft and healthy

It is unsafe to leave the cervix either in a hypertrophied or engorged state, as that might be the basis of future inflammation and reopening of the wound A majority of the cases thus treated have since given birth to children Some have borne three children since treatment without difficulty All have been entirely relieved of all unpleasant symptoms Examinations held after the birth of each child showed a perfectly healthy os and cervix

The application should be made every four days During the intervals a douche of warm water, for the purpose of removing any accumulation of secretion, should be resorted to every morning

It is the custom of the writer, in all cases of labor under his charge, to make a digital examination, at the time of the delivery of the secundines, of the os uterus, with the design of ascertaining the presence of laceration If it exist, warm water douches containing biborate of soda, boracic acid, and carbolic acid in solution, are used after the first day, with the intention of maintaining a perfect state of antisepsis, thus preventing infection, and promoting the healing of the wound by first intention, if possible If fever and cellulitis should come on notwithstanding this procedure, where no laceration can be detected, it would indicate the existence of a concealed fissure deep down in the cervical canal near the internal os, which has never been reached by the antiseptic douches In the event that healing by first intention fails to occur, antiseptic treatment and cleanliness of the wound are continued, and after two months the local treatment is commenced with the graduated solutions of nitrate of silver, with the certainty of a speedy restoration

BROMIDE OF ETHYL IN LABOR, AND CLAIMS CONCERNING PRIORITY OF ITS USE

BY H LANDIS GETZ, M D ,

OF MARSHALLTOWN IOWA

I have recently noticed some contributions upon the use of bromide of ethyl in labor,—and while I have not lately used the drug, I have done so in the past, and can give something of an experience relative to its effects upon the patient in confinement

Some time during the month of January, 1880, I received a pamphlet from Dr R J Lewis, of Philadelphia, who had used the drug in surgical practice, wherein were set forth its uses and advantages as an anæsthetic in surgical operations Being always a decided advocate of the use of anæsthetics in obstetrical practice, the idea occurred to me that if the new anæsthetic was what was claimed for it, it would certainly also answer a good purpose in obstetrical cases, and might possibly possess advantages over chloroform, and in a paper read before the Iowa State Medical

Society, which convened at Des Moines, January 27, 1880, I suggested the use of the drug in obstetrical cases. Shortly afterwards I procured the new anæsthetic and inhaled some of it, that I might compare in a degree its effects with those of chloroform and ether. I found that it produced in a measure the excitement and disposition to talk, which is peculiar to the primary effects of ether, and while anæsthesia could be as quickly produced with ethyl as with chloroform, it did not last so long. I also observed in my own case, and in others, that there was more nausea and vomiting and headache when the ethyl was used, than with chloroform. I also used mixtures of ethyl and chloroform, but found in them no advantages over chloroform alone. I make the following objections to bromide of ethyl.

1st. It is no safer than chloroform.

2nd. I can produce anæsthesia as quickly with chloroform.

3rd. The same *degree* of anæsthesia does not endure so long as with chloroform.

4th. It produces more nausea, vomiting and headache than chloroform.

5th. The odor and taste is more unpleasant than that of chloroform.

6th. It possesses no advantages over chloroform in obstetrical practice.

7th. In prolonged obstetrical operations it is not so good as ether, because the anæsthetic effect is of short duration, and as a consequence requires to be continuously administered.

8th. For these reasons, I have abandoned the use of it.

Concerning priority in the use of bromide of ethyl in labor, Dr. E. E. Montgomery, in a supplement to a paper read by him before the Obstetrical Society of Philadelphia, and published in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, of September 26, 1885, writes as follows:

"In following the German literature by which I was led to use this drug in labor, I ascribed its first obstetrical use to Lebert, of Paris. The first case in which he used it was for the application of forceps, and occurred in March, 1881, but a paper published by Dr. Turnbull, (*Med. Bulletin*, June, 1880,) shows that he had then used it in a second case of labor, and spoke in high terms of its peculiar advantages. Dr. H. Augustus Wilson had used it in labor prior to August 7, 1880, when he published an article on this drug. (*Medical and Surgical Reporter*, Aug. 7, 1880.)

"It becomes quite evident that the first obstetrical trial of this agent was made in this city, and the priority lies between the gentlemen named."

Now, accepting Dr. Montgomery's dates as correct, I lay claim to priority of use of the drug in obstetrical practice, by a year over Lebert, of Paris, and by months over Turnbull and Wilson, of Philadelphia. In a paper read by me at the Iowa State Medical Society (as already indicated) which convened at Des Moines on January 27, 1880, on "The Use of Anæsthetics in Labor," I suggested the use of bromide of ethyl for this purpose (see extract of paper published in *New York Med. Record*, February 21, 1880). The first case in which I employed the drug occurred on March 29, and the second case March 30, 1880, as my obstetrical memoranda, made in my "Visiting list" for 1880, show. These facts, I believe, *clearly* leave with me and in the West thus far, the credit of priority of the use of bromide of ethyl in obstetrical practice, *instead of* at Paris or Philadelphia, or with the gentleman whom Dr. Montgomery unintentionally placed it.

204 E. Main St., September, 1885.

MEDICAL PROGRESS

PILOCARPINE IN DATURA-POISONING.—DR. LADISLAS ROTH, of Nagy Bajour, Hungary, was called, at 1 P. M., to a little girl, aged 4, in a druggist's shop. She was quite insensible, with widely dilated and insensitive pupils, the face and body being swollen as if dropsical, and covered with a scarlatiniform rash. She was very restless, throwing herself about in all ways, groaning and gnashing her teeth, the pulse was 146, small and weak, the respirations forty, superficial, the temperature 39.5° Cent. (103.1° Fahr.). No urine or stool had passed since the commencement of the symptoms. The mother said that other children had told her that the child had eaten two handfuls of sweet ripe stramonium-fruit, and, when she saw her at eleven o'clock, she had seemed ill, and unable to stand on her feet. She had called the Government medical officer, who prescribed a mixture containing two grains and a quarter of tartar-emetic. The druggist, however, being of opinion that that would not do any good, took upon himself to give a solution of sulphate of copper instead. In the vomit which the copper had produced a number of berries of datura stramonium were seen. Dr. Roth, remembering a case of atropine-poisoning he had seen reported by Professor Purjek, which had been cured by pilocarpine given subcutaneously, administered, at twelve o'clock, half a centigramme (one fourteenth grain) of pilocarpine, in five centigrammes of water, by means of a Pravaz's syringe. No salivation or sweating followed, but no improvement was detected, and, at a quarter to three, a centigramme was given. The red rash and the swelling diminished. At three, another centigramme was given. The child cried, and shortly began to show various signs of improvement, even answering, "Yes," when the mother asked if she were ill. The injections were continued. Up to five o'clock, five and one half centigrammes had been given. At six, the pupils had become almost normal, and the pulse 120, and temperature 39.8°. She was able to speak quite plainly, and wanted something to eat. All this time, there had been no sweating. At seven o'clock, as her condition appeared somewhat less satisfactory, half a centigramme more was given, and this brought on both salivation and sweating. She made a rapid recovery. Altogether, six centigrammes of hydrochlorate of pilocarpine were administered, five of which, the writer considers, were required to neutralize the datura.—*Brit. Med. Journ.*, Sept. 19, 1885.

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY.

The Editor of this Journal would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

Subscription Price, Including Postage.

Per Annum, in Advance	$5.00
Single Copies	10 cents.

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in registered letters.

Address,
Journal of the American Medical Association,
No. 65 Randolph Street,
Chicago, Illinois.

SATURDAY, OCTOBER 10, 1885.

MODESTY!

The *Medical News* and the *Record* are still laboring to make the professional world believe that there are no leading men in the profession of the United States except the twenty-eight in Philadelphia, the dozen in Baltimore, and the half dozen in New York who refused to accept positions in the International Medical Congress, "as then *proposed* to be organized," before the actual organization had been effected; and they are still publishing pretended declinations from the same "proposed" organization. The *News*, however, seems to be rapidly losing its interest in the whole subject, and in its last week's issue lugubriously expressed the hope that "the nation may be spared the disgrace" of having the Congress held in this country. Perhaps the fact that the unpatriotic conduct of that journal and its twenty-eight coadjutors has been openly condemned by one hundred and fifty of the leading members of the profession in its own city, and three or four hundred more in the State, is having something to do with its waning interest. And there is some reason to hope that its corps of editors will ere long actually discover that there is a medical profession in the United States outside of that editorial corps and its little coterie of favorites.

The *Record*, with still more remarkable modesty, openly declares "that there is no exaggeration in saying that there are not half a dozen representative men in the profession now who are prominently connected with the organization of the Congress." As Austin Flint, Sen., is President, W. O. Baldwin, H. I. Bowditch, Wm. Brodie, Henry F. Campbell, W. W. Dawson, R. Palmer Howard, E. M. Moore, T. G. Richardson, Lewis A. Sayre, and J. M. Toner, are among the Vice Presidents, and Henry H. Smith, Wm. H. Pancoast, A. R. Robinson, Wm. T. Briggs, Joseph Jones and John P. Gray, are among the Presidents of Sections, the question will naturally arise in the mind of the reader whether there are any "*representative*" men in the profession of the United States in the estimation of the *Record* except its editor, George F. Shrady, A.M., M.D.

A week or two since, the editor of the same journal, in asserting its usual pretense that the action of the Committee of Arrangements was condemned by the whole profession and the medical press, actually named eighteen medical journals out of the one hundred or more published in the United States, that had sometime published expressions of disapproval of the action of the Committee of Arrangements. But to get even this relatively small number of journals, he had to include the *Chicago Journal and Examiner*, whose editor simply admitted in its columns that errors had been committed on both sides, but is himself an earnest supporter of the present Preliminary Organization of the Congress, and President of one of its Sections. While both the *News* and *Record* find plenty of space to copy from week to week, under the head of public sentiment, the comments of their little coterie of journalistic followers, neither of them has had the manliness to publish the official report of the proceedings of the Committee of Arrangements as finally adopted at the meeting in New York, so that their readers could read and judge for themselves concerning both the appropriateness of the Rules and the *personnel* of the Organization.

The truth is, that the Rules as finally adopted and the Organization for which they provide are free from every objection that had been urged against the previous work of the Committee, and further opposition can have no other basis than mere personal prejudice or the unpatriotic desire to drive out of the country whatever the opponents cannot personally control. But they may rest assured that further opposition on either basis will be unavailing. The Ninth International Medical Congress will be held in the City of Washington in 1887, and will be equal, in all its legitimate interests, to any of the Congresses that have preceded it.

BACTERIAL THERAPEUTICS.

The recent experiments of Professor Cantani regarding the effect of administering, by inhalation, a spray of bacterium termo in a case of acute pulmonary phthisis seems to be a new proof of the truth of the adage "Set a thief to catch a thief," since these experiments seem to show quite conclusively that the bacterium termo completely antagonises the bacillus of phthisis.

According to the *Centralblatt für die medicinischen Wissenschaften*, of July 18, 1885, quoted in the *Philadelphia Medical Times*, of August 8, a pure culture of bacterium termo was used diluted with gelatin and meat-broth, by means of a hand spray apparatus with double rubber bulb. "The expectoration rapidly decreased, until it ceased entirely during the last few days of the experiment. The tubercle bacilli likewise soon diminished from (in?) the expectoration, and did not reappear, while bacterium termo became more and more abundant." The fever decreased very much during the last few days of the experiment, and the bodily weight was decidedly increased; in short, the patient was very much better. We are not told why the administration of the bacteria of decomposition was discontinued—nor are we informed as to the aroma of the patient's breath after having undergone this novel therapeusis for a month, though that may be left to the imagination.

The *Times* says, regarding this experiment, that it "satisfies the requirements of science, and apparently establishes it as a fact that the antagonism known to exist between the bacterium termo and the bacillus tuberculosis, may be used for therapeutic purposes *cito, tuto et jucunde*." To our mind it also establishes another fact, not required by science, that the bacillus tuberculosis is somewhat particular as to the company it keeps. And however much we may hereafter dread that bacillus, we must respect it for its aristocratic sentiments. Before fully recognizing it as belonging to the upper classes however, it would be well to have some idea as to its behavior in the presence of Neisser's gonococcus and Lustgarten's bacillus, though this would not be an absolutely true index of its social standing, as these microbes move in the very best society.

The question which now arises is, Will the matter stop here, or is the time near at hand when the physician will relegate the prescription pad to the limbo of the forgotten, and make his daily rounds armed only with hand-spray apparatus with double rubber bulb, containing gelatin cultures of bacteria, labeled in proper order from abscess to zoster (and made by the improved process of some manufacturing chemist)? And if the usual number of "Physicians' Samples" are sent out, will not the doctor's office be somewhat more dangerous than a powder factory? The accidental introduction of the microbes of insomnia, into a foundling asylum, might be followed by most appalling consequences, unless the attendants were so fortunate as to be deaf. Far more dangerous than the doctor's office, however, will be the drug store (or, as it will then be called, the bacteria emporium), and it is quite probable that the manufacturing chemist will find it impossible to insure his life at any risk.

But perhaps there will now be a field of usefulness for the bacterial wealth which has been unused for several years and to which additions are being constantly made. It is not improbable that Seifert's bacillus of influenza, the bacillus of mumps, and several other seemingly superfluous microbes will come prominently forwards as candidates for therapeutic honors. It is quite probable, also, that we may be able to exchange with the lower animals for some of their bacteria. Is it not possible that the cholera bacillus may be made to do duty as a physiological antagonist to foot-rot in sheep, or that the bacillus of hog-cholera may find a field of usefulness in combatting the ravages of chicken pox? These are some of the questions almost necessarily suggested by Cantani's experiments. And it seems that when they are settled, the medical millenium will have certainly come—and cocaine will be cheap.

By referring to the abstract of Dr. S. K. Jackson's Address before the Medical Society of Virginia, (Journal of the American Medical Association, October 3, p. 375), it will be seen that this plan of treatment was first suggested by him in September, 1883, at the meeting of the Medical Society of Virginia.

THE AMMONIA TREATMENT OF TYPHOID FEVER.

In a paper read at the meeting of the American Medical Association, in 1884, Dr. S. K. Jackson called attention to a line of treatment which he claims "has furnished results very different from the recorded experience of others, a treatment suggested by the recognition of several pathological conditions, which, though long since demonstrated, had been entirely ignored by the profession when looking for indications for treatment." Dr. Jackson has recently treated the subject more fully in an article in the *Physician's Magazine*, August, 1885.

As is well known, one of the most prominent pathological states in typhoid fever is the excessive nitrogenous waste of the system—which need not be discussed further than to say that the probable causative factors are an inability to digest nitrogenous food, due to a deficiency of the digestive fluids in typhoid fever, and the enormous consumption of the nitrogenous matter of the system by what we may designate as the probable parasitic organism of the disease “That this microzoon is a nitrogen feeder, is evident from the fact that he lives and is enveloped in nitrogenous matters in urea and all nitrogenous excreta,” and further, “by the ammoniacal exhalations emitted by a typhoid fever patient, from the breath, the skin, as well as by the urine, which, when freely passed, as is known to all, emits the odor of ammonia

In the opinion of our author, then, the most important therapeutic indication is to supply this nitrogenous waste From the nature of the disease, however, this waste cannot be directly repaired by nitrogenous food, since, as has been shown, the glandular secretions which act on this food to render it digestible are at a stand still Even milk, the only natural food from which anything is to be expected, cannot be administered in sufficient quantities to supply the whole waste We must therefore make use of some highly nitrogenized substance, which does not require digestion, but which is easily absorbed when taken into the system This substance Dr Jackson believes to be *ammonia*, preferably in the form of the doubly nitrogenized salt nitrate of ammonia, since it also acts as a sedative, and, what is especially important, according to Dr Jackson, it has a remarkable power of reducing the temperature in typhoid fever Why or how it reduces the temperature of enteric fever cannot be definitely stated, but he thinks that “it is by inhibiting the life-processes of the microbe, by saturating it with the products of its own life, thus either crippling its vitality or altogether destroying its life, on the principle enunciated by me several years ago ‘No organism can exist in its own excretions, the product of its life processes’ Whatever may be its *modus operandi*, its effects are unquestionable”

The nitrate, however, is not the only salt of ammonia which may be used in typhoid fever The nitrate is an efficient antipyretic, the acetate, which combines well with acetate of lead, the most valuable astringent in these cases, is somewhat astringent, and “the nervous stage is wonderfully modified by the carbonate” and the hydrochlorate is undoubtedly the most efficient of all drugs in the stage of coma In these salts of ammonia, then, according to Dr Jackson, we have a complete armamentarium for the medical treatment of enteric fever at least, they are the main drugs to be depended upon, though turpentine is still acknowledged to be the most efficient remedy for meteorism, and acetate of lead, with acetate of ammonia, is to be administered in diarrhœa, though the acetate of ammonia alone may be sufficient It need scarcely be said that the preliminary treatment of these cases, until the true nature of the disease is manifested, is still the same The nitrate of ammonia may be given in doses of gr vj every two hours, combined, if necessary, with aconite and spirits of nitrous ether In diarrhœa the liquor ammoniæ acetatis may be given in doses of ʒj–ij every two hours, with or without turpentine or the lead salt When nervous symptoms supervene, carbonate of ammonia may be given in gr iij every hour or two, with an equal quantity of chlorate of potassium, and to this quinine may be added For the stage of coma the muriate may be given in gr iij doses, or more, every two hours, quinine being added if necessary

In connection with the above may be mentioned Dr Jackson’s system of feeding enteric fever patients So soon as the nature of the disease is apparent the patient is put upon an exclusive milk diet Animal broths are never given until convalescence is fairly established On account of the absence of the diastasic fluids, farinaceous or amylaceous foods are inadmissible, unless administered with a sufficient quantity of a reliable malt preparation, which would contain the amount of diastase necessary to convert the starch into dextrine and glucose Even when the salivary fluids return, and amylaceous foods are again administered more freely, the malt should be continued When the nervous stage or that of coma sets in, the diet may be more generous, and stimulants are admissible The results obtained by Dr Jackson are certainly sufficient ground for an extensive clinical study of his plan of treatment

IS CRANIOTOMY UPON THE LIVING FŒTUS EVER JUSTIFIABLE?

A distinguished teacher of obstetrics, residing in Boston, was recently visited by a delegation of Roman Catholic priests The priests were instructors in a large theological seminary The object of their visit was to obtain knowledge of the present status of the operation of craniotomy upon the living fœtus

Their attention had been called to the address of Dr S C Busey, before the Washington Obstetrical and Gynæcological Society, and published in the *American Journal of Obstetrics*, February, 1884 Dr Busey had unqualifiedly condemned craniotomy upon the living fœtus Modern scientific investigation supported the famous dogma of the Roman church, authoritatively proclaimed by the Theological Faculty (of Paris) many years ago,—“If it is not possible to extract the infant without killing it, it is not possible to extract it without committing mortal sin" The wisdom of the ancients was worthy of admiration

Certain members of the Faculty of the Boston Theological Seminary, although familiar with the responsible character of the *American Journal of Obstetrics*, desired corroboratory testimony Accordingly, they appealed to one of the instructors of the famous medical school of that city It seems scarcely necessary to add that the obstetrician denounced in very emphatic terms Dr Busey's paper as sensational and utterly fallacious

In the paper we have mentioned, the question, "Is Craniotomy upon the Living Fœtus a Justifiable Operation?" is discussed and decided in the negative in a manner that excited much surprise and positive displeasure when it was published General inaccuracy of statement, the omission of recent statistics, the frequent recurrence of logical fallacies in the premises, conclusions, and order of the argument at once condemned the essay in the eyes of the scientific medical world

Dr Theophilus Parvin, of Philadelphia, called attention to many glaring inaccuracies in an editorial, which appeared in the *Medical News*, March 29, 1884 Dr W W Jaggard, of Chicago, published a systematic criticism in the *American Journal of Obstetrics*, November, 1884 Dr Robert B Dixon, of Boston, read a paper upon the same subject, April 15, 1885, before the Section of Obstetrics and Gynæcology of the Suffolk District Medical Society, which was published in the *Boston Medical and Surgical Journal*, September 17, 1885 Dr Dixon's paper was ably discussed by Dr Benjamin Cushing, Dr A D Sinclair, Dr Fifield, Dr Reynolds, Dr Wm L Richardson, Dr Green, and Dr Lyman, who entirely agreed with the strictures upon Dr Busey's paper

Notwithstanding this accumulation of evidence, we find the errors inculcated by Dr Busey's sensational address still persisting, and liable to be perpetuated as an integral portion of the dogmatic theology of the Roman church

SOCIETY PROCEEDINGS

MEDICAL SOCIETY OF VIRGINIA

Sixteenth Annual Session, held September 15, 16 and 17, 1885

(Continued from page 355)

Evening Session,

The evening session was opened with a paper by Dr Bedford Brown, of Alexandria, Va, in continuation of the subject of *Scarlet Fever* A high temperature, a frequent pulse and excessive cervical adenitis must first claim attention He has seen some malignant cases with cold extremities and tongue with a body temperature of 107° Salicylic acid combined with tincture of aconite and infusion of digitalis diminish fever more decidedly than any other antipyretics He uses the following

℞

Acid Salicyl	ʒij
Tinct Aconit Radicis	gtt xij
Infus Digitalis	℥iss
Spts Ammon Arom	ʒiij
Syr Aurant Corticis	℥ss
Aquæ	℥i

M S Teaspoonful for a child 5 years old every three hours

This combination acts also as a diaphoretic, and favorably influences the kidney functions Its action may be increased by the tepid bath or wet pack He has observed marked benefit from alcoholic stimulants in malignant cases tending to collapse and coma, and in cases, on the other hand, of high fever, rapid pulse and extreme restlessness These agents also generally prevent adenitis In dangerous cases, the frequent use of baths is attended with exhaustion In scarlet fever, tending to extensive suppuration and pyæmia, tincture of iron Fowler's solution and quinia sulphate are the best agents To relieve acute nephritis and renal dropsy, enveloping the body with a flaxseed meal poultice, covered with oil silk answers well When the kidneys are engorged, the urine bloody, with dropsy of the chest and abdomen, a full dose of calomel followed by compound powder of jalap will often do good Such cases bear purgation better than almost any other But if the renal dropsy is attended with a cool skin, great pallor of complexion, feeble pulse and great general prostration, then frequent purgation is not well borne In such cases, use lumbar poultices, digitalis, acetate of potash and tartrate of iron and potash, with occasional saline cathartics There is a morbid element in scarlatina which often develops well marked rheumatism, hence the frequent cardiac complications When these threaten or occur, resort to the active agents named in the prescription above given The alkalies and salines should enter into the therapeusis of the renal complications Dr Brown has been disappointed with the diaphoretic action of pilocarpin in scarlet fever Iodide of potash is often a useful medicine in the nephritic sequelæ of scarlatina

Dr R I Hicks, of Casanova, Va, said he had treated a great number of cases of scarlet fever in his thirty years of practice, but had never seen anything denoting kinship between scarlet fever and diphtheria, nor had he seen scarlatinal throat complications threaten life Simple hot water throat mopping or gargling will relieve that He thinks the best plan of treatment consists in cold sponging of the body, and the use of quinine and of carbolate of iodine in small doses internally He lays great stress upon the surroundings of the patient under treatment Everything should be kept clean, and a current of fresh air should be kept up about the bed If the bed is behind the door, or in a corner of the room where there is no circulation of air, pull it out to the middle of the room, and keep the windows open When the weather is very cold, use rooms where there is an open fire place He believes that malignancy depends upon bad sanitation Zymotic germs do not live in pure air Filth breeds them He thinks salicylate of soda irritates the stomach too much, and corrosive sublimate in doses large enough to kill germs kills the patient

Dr Alex Harris, of Jeffersonton, Va , wished to emphasize (1) the benefit of isolation, both as a preventive and as a curative measure, (2) sick rooms with open fire-places, (3) position of bed out from the walls—not in a corner of the room and draughts of fresh air passing through the room The clothing of patient and bed should be changed daily He mentioned a striking case in which a patient almost in collapse was restored in a half hour from a suffocative condition to one of easy breathing, simply by clearing the room of everything except the bed, which was placed in the middle of the room, bedding and patients clothing changed, and currents of fresh air made to ventilate the room (4) Popular disinfectants are generally not useful in permissible doses Fire or water above 212° are germicides Hence, burn or boil whatever clothing has been used about the patient (5) Always disinfect a house in which a zymotic disease has been treated Scarlet fever has been traced to a house in which it was a year or more previous Pour boiling water all over the floors, in the cracks, on the walls, etc Doubtless steam would do better

Dr C T Lewis, of Clifton Forge, Va , said he knew of cases where one child had scarlet fever severely, and the other children were continuously with him yet without contracting the disease He believes in the stimulating plan of treatment, and thinks digitalis helps to relieve the swelling of the throat Sometimes he uses chlorate of potash and muriated tincture of iron He is a great advocate of such sanitary measures as Dr Harris has just named, and he feeds liberally

Dr John F Winn, of Richmond, agreed with the speakers as to their sanitary injunctions He thought that in towns particularly, placards should be placed on the doors of houses where there are cases of scarlet fever so as to warm off any who might innocently go into the house with the disease Again, funerals spread the disease He thought public funerals in all cases of death by zymotic disease should be prohibited by law In regard to the bedding, etc , use old cloths, etc , and as soon as removed or used, throw them in the fire The popular "disinfectant" solution of copperas is not a disinfectant, but is antiseptic Four ounces of chloride of lime dissolved in a gallon of water is a good preparation to pour upon the evacuations of typhoid patients Corrosive sublimate in solution is also used Let all articles to be used again be kept immersed in one or the other of these solutions for several hours To disinfect a room, burn from two to four pounds of common sulphur for a day in it, with closed doors The body, after death if to be moved, should be kept wrapped in cloths wet with Labarraque's solution, ℥iv to the gallon

Dr L Lankford, of Bowers, Va , also agreed with Dr Harris and Hicks as to fresh air in the treatment of scarlet fever, and thought malignancy would be rare if this was more insisted upon than it is As an illustration, he mentioned the cases of his two children The younger was kept down stairs in a warm room and malignancy developed, the other child was kept up stairs, where there was no fire, and where a window was kept open, and had no malignant symptom or sign The weather was cold

Honorary Fellow, Dr J Herbert Claiborne, of Petersburg, Va , spoke of a case in which the dermic inflammation was so intense that, on the third day, the skin came off in large patches all over the body Some children played day after day in the room with the patient, and yet none of them contracted the disease Shortly afterwards, some other children had the fever so mildly that they even went out of doors, and soon cases developed in their playmates An old lady living in the house with these mild cases had scarlet fever so badly that she came near dying To disinfect a sick room, not only the organic germs must be destroyed, but the spores also A solution of corrosive sublimate (1 1000) is required to kill the spores, or water at 280° But the best disinfectant for a sick room is pure fresh air, the doors and windows should be left open Of course, always disinfect articles of clothing, etc He thinks that Squibb's solution of chlorinated soda —℥ij to the gallon—is the most perfect insecticide in the market, and it is cheap enough to be in the reach of all

Dr Wm L Robinson, of Danville, Va , believes a great deal of good results from proper medicinal treatment He brings down the fever by using a full bath at 95° which he allows to cool down to 85° while the patient is in it Before taking him out of the bath, give a weak toddy, and rub the surface of the body over with camphorated oil He also depends much upon the free use of lithia water If the nose gets stopped up so as to cause mouth breathing, the child often wakes from cat naps with screams For this condition, he uses steam atomizer with chloral hydrate—two grains in an ounce of water This keeps the nose moist Large doses of calomel and jalap should be used if kidney complications supervene In one case of œdema of the lungs, pilocarpin hypodermically saved the patient

Dr Winn stated that a correspondent, in the Journal of the American Medical Association, places patients sick with diphtheria on house-tops or on the porches, and says that all get well The more fresh air, the better are the results of treatment

Dr W W Parker, of Richmond, Va , has often been disheartened at the results of treatment of scarlet fever Many cases get well, it is true, without any medical treatment, but formerly other cases did not get well under any plan of treatment Now he has good results, and he thinks the best remedy for bad cases is alcohol in free doses He wants his patients kept hot He got his suggestion from the good effects of alcohol in typhoid fever For the sore throat, applications of turpentine are as good as carbolic acid Keep the child in the house according to the weather In ten days in the summer, the patient may go out, but in winter, wait until three or four weeks have elapsed

Dr M A Wilson, of New River Depot, Va , has used Bartholow's prescription of tincture of belladonna to antagonize that condition of the throat which causes exudation, with great satisfaction

Dr Hugh T Nelson, of Charlottsville, Va , agreed with Dr Parker and others that many cases get well without any treatment He had known children without the eruption but with scarlatinal nephritis to spread the disease Hence, during an epidemic, keep children more or less separated from intercourse with each other Patients often succumb to accumulation of heat around the nerve centres, hence, the necessity for diaphoretics and heart stimulants After these use tonics The objects of treatment are to cause elimination of heat, and to quiet the heart

Dr Sam'l K Jackson, of Norfolk, Va , said that the common practice in his city is to use the chlorine treatment of Watson as described in his work on "Practice of Physic "

Mr J W Thomas Jr , of Norkfolk, Va , stated that Watson's chlorine mixture is as follows

℞

Potass chlorat	ʒij
Acid hydrochloric Aquæ	aa f ℥ij

M Keep in a dark bottle loosely stopped until effervescence had ceased Then

℞

Watson's chlorine mixture	ʒij
Water	f ℥iv

M Ten grains of chlorate of potash may be added if desired

Dr Robert S Lewis, of Culpeper, Va , has always used Watson's chlorine treatment with success

Dr Wm L Broaddus, of Newtown, Va , confirms the statements made about Watson's chlorine treatment He has used it especially in diphtheria, which, he thinks is related to scarlet fever Of eight cases in which he made tests, he used the chlorine treatment in seven cases, and they recovered, one case in which he used another plan of treatment died

Dr John Grammer, of Halifax C H , Va , uses Watson's chlorine treatment, and thinks well of it in scarlet fever It is important to attend to the secretions, and therefore he uses calomel and inunctions, which generally act promptly

Dr W D Cooper of Morrisville, Va testified to the value of the chlorine treatment—both internally and externally

Wednesday—Afternoon Session

Dr Hunter McGuire, of Richmond, exhibited a case of

COXALGIA, AMYLOID LIVER AND POTT'S DISEASE

The patient was a boy aged seven years Three years ago he had hip joint disease, and the head of the femur was removed by Dr L A Sayre, of New York Some carious bone was left, and the sinuses remained and continued to discharge When Dr McGuire first saw him the discharge amounted to eight to ten ounces of pus per day With this condition there were symptoms of amyloid degeneration of the liver The patient was put on bichloride of mercury, and the liver was diminished fully one half, so that there are some doubts as to whether there was any amyloid degeneration as this has hitherto been supposed to be an incurable condition The discharge from the sinuses at the hip joint amounts now to about ʒss of pus a day The most interesting feature of the case now is the fact that the patient has developed Pott's disease For three years this patient has been on his back, nursed most carefully and skilfully, with absolutely no chance for any injury to the spine, and yet he has developed Pott's disease solely from his hereditary constitutional vice, which completely disproves the teachings of some most eminent surgeons

Dr McGuire also exhibited a case of

OBSCURE PELVIC TUMOR—INFLAMMATORY EXUDATION, THREATENED SUPPURATION, OR SARCOMA?

The patient was a physician, Dr F , who, nine months ago, after becoming much exhausted, had symptoms of local peritonitis in the cæcal region the sequel to which was a lump in the left inguinal region, external to the bowel The patient suffers greatly from constipation, and from pain after an operation from the bowels

The tumor is now quite large, and by pressure on the iliac artery interferes with the circulation The outline of the tumor is easily made out along the crest of the ileum, while its lower border is at Poupart's ligament There have never been any signs of intestinal obstruction The patient has not the appearance of a person suffering from cancer, and there is no lympnatic involvement whatever in the inguinal or any other region, nor has the patient had any of the sharp lancinating pains of cancer There has never been any sign of intestinal obstruction It is possible that the tumor may be due to inflammatory exudation at the time of the local peritonitis, or it may be due to threatened suppuration, since Dr McGuire is certain that he has detected fluctuation, though two other surgeons have failed to detect it Should it not be one of these conditions it seems almost certain that it must be a sarcomatous growth

Dr M G Ellzey of Washington, D C , presented the

REPORT ON CHEMISTRY, MATERIA MEDICA AND THERAPEUTICS

He said that *Chemistry*, as a science, is approaching the exactness of completion As a practical art it is making rapid and brilliant advances The teaching of the elements of general chemistry should be relegated to the primary schools, in medical colleges medical chemistry as applied in practical medicine and surgery should be taught

In *Materia Medica and Therapeutics*, interest has recently centred around two drugs mainly, viz —cocaine and antipyrin Medical antipyretics have, however, proven slightly disappointing The evidence is a temperature may be reduced without benefitting the disorder, or even at times resulting in mischief The true place of *antipyrin* can scarcely yet be assigned Attempts to enrich materia medica by an attenuated cholera virus for inoculation have proven abortive Germs and germicides have continued to attract unabated interest The results of Dr Sternberg's studies, now before the public, are of much value Our germicidal doings have sometimes proven homicidal Eminent men have destroyed their patients with corrosive sublimate, but their eminence does not relieve them from criminal responsibility for these fatal poisonings Climatological therapeutics have been recently studied afresh Appalachian Virginia is a vast summer sanitarium The subject needs more complete study

Dr Smelt W Dickinson, of Marion, Chairman of the Section, presented the

REPORT ON ADVANCES IN OBSTETRICS, AND DISEASES OF WOMEN AND CHILDREN

As to *Antiseptic Midwifery*, he said, there can be no doubt that many lives have been saved by greater cleanliness since the agitation of this subject began Modifications of obstetric antiseptic rules of a year ago have been made, such as doing away with or lessening the frequency of vaginal and intra-uterine injections While mercuric bichloride is our best germicide, its use is more or less dangerous, especially when nephritis is suspected But antiseptic cleanliness of all things entering the puerperal vagina or womb—such as hands, sponges, instruments, etc —is all important Lying in chambers should be kept aseptic Cushings and other prophyctic systems are then described, first through bathing and then douching the vagina *ante-partum* with very weak solutions of corrosive sublimate, and then washing out the uterus with a like solution after delivery of the placenta or instrumental labor The doctor's and nurse's hands are kept asepticised all the time

Post partum drainage is best effected by letting the patient sit up on the chamber vessel when she wishes to urinate or have an action from the bowels, provided, of course, the condition of the patient permits it

The *contagium of puerperal fever* seems to be of a material character, capable of being acted upon, and either destroyed or washed away by vaginal or intra-uterine injections holding antiseptics in solution If the temperature rises above 100° after delivery, without other assignable cause, and the lochia become offensive, use antiseptic injections at once After the doctor has thoroughly disinfected himself, he may return immediately to obstetric or surgical work

Extra uterine pregnancy is now treated by electricity to kill the fœtus, with a subsequent resort to laparotomy to remove it

Combined version in placenta prævia consists in tamponing the vagina and anæthetize the patient After sufficient dilatability of the vagina is secured, remove tampon, introduce hand and carry two fingers into the cervix uteri Push fingers through the presenting placenta, draw the presenting part of the fœtus to one side, and at the same time let the other hand on the belly press from without so as to carry the buttocks down until a foot can be reached, draw the foot through the cervix so that the breech may act as a tampon on the lower segment of the uterus Then wait for the spontaneous expulsion of the child, or, at least, for sufficient dilatation of the cervix to complete delivery

As to *treatment of the cord*, Dr Christopher Tompkins, of Richmond, recommends that the cord be drawn between the fingers until some of the gelatinous matter is expressed, and then tie as usual, except a third ligament is applied near the one left on the umbilical cord Credé and Weber use absorbent cotton as a daily dressing for the cord instead of cloths, to prevent umbilical inflammation

Ethyl bromide promises well as an obstetric anæsthetic Cocaine is *sub judice*, with chances against its general adoption The forceps cannot be supplanted Abortion is generally advocated in dangerous placenta prævia, puerperal nephritis, and uncontrollable risky vomiting of pregnancy Well-regulated temperature of lying-in room is essential to the life especially of premature feeble children. Swinging as a substitute for artificial respiration is urged by some

As to *Diseases of Women, neurasthenia* is the most prominent A common error is the mistaking of nervous disease for womb disease Neurasthenia, according to Mitchell, is generally associated with anæmia, and is chiefly reflex in its manifestations. Rest, massage, electricity, and forced feeding are the essentials of treatment

Laceration of the cervix uteri will heal without an untoward symptom if blood-poisoning be prevented. Always treat the cellulitis before using any operative measures

Alexander's operation for backward uterine displacements consists in cutting over and down to the external inguinal ring, gathering up the ends of the round ligaments and drawing them sufficiently out to restore the womb to its normal position Then stitch the ligaments to the edge of the ring, and cut off about an inch of the end Drawing too much on the ligament has caused death Wear a pessary for two months after the operation Prolapse of both ovaries into Douglas' cul-de sac with consequent sterility, may be cured by this operation

Dr Goodell advises *rapid dilatation of the cervix for dysmenorrhœa* It is better than the cutting operation, especially for dysmenorrhœa of mechanical origin, as well as for nervous dysmenorrhœa

As to *Diseases of Children*, carbonate of ammonia in scarlet fever is gaining favor—large doses Dr R D Huffard, of Smythe Co, Va, uses the carbonate later in the disease, when the capillary circulation is languid Subnitrate of bismuth powdered over the sore tongue, which usually appears about the fifth day, acts well, as it does also in cancrum oris Trypsin as a solvent for diphtheritic membrane is a success Use it as a spray every fifteen minutes if the patient's strength will permit Chlorate of potassium is to be avoided in febrile affections where the blood is alkaline, and is condemned in diphtheria and in nephritic diseases causing scanty urine, uræmia, and the like *Icterus neonatorum* is supposed now to be due to the potency, to a greater or less extent, of the ductus venosus Dr Hartigan, of Washington, D C, supports the theory advanced in 1848 by Dr Marion Sims, that the *cause of trismus nascentium* is "an inward displacement of the occipital bone"

Thursday, September 17—Third Day

Dr R T Styll, of Richmond, presented the

TREASURER'S REPORT,

showing a balance in the treasury of $390 55 after all expenses are paid

A sum not exceeding $100 was voted to be used, if necessary, to retain legal counsel in case the State Board of Medical Examiners is sued, as threatened by a complainant who did not succeed in passing his examination before the Board

Dr W D Turner, of Fergusson's Wharf, from the Committee on Regulating the Practice of Pharmacy, reported favorably as to the petition for the enactment of a bill to regulate the practice of Pharmacy

Dr Bedford Brown, of Alexandria, read a paper on

THE SUCCESSFUL TREATMENT OF LACERATIONS AND FISSURES OF THE CERVIX UTERI OF LONG STANDING, WITHOUT SURGICAL OPERATION

(For an abstract of which see p 400)

Honorary Fellow, Dr George T Harrison, of New York City, then read a paper on

PUERPERAL SEPTICÆMIA, ESPECIALLY WITH REGARD TO PROPHYLAXIS AND ETIOLOGY

Due credit is given to the labors of Semmelweiss for his valuable investigations which pointed out the right road to the study of puerperal fever He showed that child-bed fever was a disease that comes from without Without a wound somewhere along the genital tract puerperal septicæmia does not exist After expulsion of the child and secundines in labor, the entire inner surface of the uterus is laid bare like a part of the skin deprived of its epidermis by a blister With this fact, it is only necessary to call to mind the possibility of very rapid absorption of septic matters introduced into the vagina or the uterus In primiparæ always, and in multiparæ generally, there are tears in the cervix, vagina or vulva, and often lacerations or contusions of the perineum, etc If a puerperal wound were protracted from external influences, it would heal like a wound on the surface of the body But putrefactive organisms can develop in the living organism wherever dead tissues or fluids (as extravasated blood) are found, while the healthy physiological tissue in general opposes a considerable resistance to their multiplication On the other hand, other pathogenic (disease generating) micro parasites find, in the living tissues within the cells, in the blood, in the lymph sinuses, etc, the most favorable condition for development and multiplication These fungi endowed with specific powers, are entirely different from the putrefactive organisms, and are destroyed by the latter In puerperal fever, the carriers of infection are either the pathogenous fungi, which generate traumatic diphtheritis, pyæmia and septicæmia, or they are putrefactive germs The latter are ubiquitous, the former are imported, and get to the puerperal woman by the hands, instruments, cloths, etc, that may be used about her genitals, They are derived from suppurating surgical wounds, cadaveric poisons and especially lochial discharges of women suffering with septic infection A minimum quantity infects in the most effective manner

The lochial discharges of puerperal sick *during an epidemic* are so infectious that they endanger life, by infection, of the non puerperal woman, of the pregnant, of physicians and gynæcological cases where operations have been performed In the puerperal woman, the conditions for the rapid development of the pathogenous fungi are most favorable Contrary to general opinion, Gusserow has shown that there is no connection between puerperal sepsis and erysipelas, and that the micrococci of erysipelas cannot produce pathological changes identical with septic processes The pathogenic fungi affect the organism immediately, while putrefactive germs do so indirectly by their influence on decomposable matters, always present in puerperal women An autogenous or autochthonous infection is an impossible thing The characteristic features of non pathogenous infection are (1) the late appearance of the fever, (2) the slight participation of the general condition, and (3) the existence of local morbid substrata

The principles of prophylactic treatment consist in pure air for the lying in woman, the careful avoidance of introduction of infectious matter into the genital passages, and the thorough disinfection of the genital tract The physician's and midwife's hands, instruments, etc, should be disinfected before using about a puerperal woman Disinfection must be both mechanical and chemical Use the finger nail brush, after thoroughly washing the hands with soft soap, and then wash the hands again Take off the coat and roll up shirt sleeves Then dip the hands and fore arms in a disinfectant solution Instruments and cloths should be dipped in such a 5 per cent solution of carbolic acid for several minutes During the pregnancy—especially if there be any puerperal fever epidemic—the woman should frequently wash her external genitals with soap and water and afterwards with boracic acid solutions When labor sets in, Dr Thomas advises her to use a warm vaginal injection of antiseptic character, but Dr Harrison protests against this injunction, under ordinary circumstances, as such injections are unnecessary and fraught with danger They remove the mucus which renders the vagina soft and pliable, and most of the disinfectants used, especially carbolic acid and mercuric bichloride, coagulate the mucus and irritate the surface of the vagina The bacteria naturally found in the vagina are not dangerous But if the patient has been subjected to the possibility of septic infection during the birth, then it would be eminently proper to use a copious antiseptic vaginal douche immediately after the birth and during the rest of the puerperal state In tedious and complicated labors, where frequent examinations have to be made or instruments used, injections are absolutely indicated Sometimes putrefictive decomposition of the uterine secretions occurs before labor ends In such cases, complete the labor as speedily as possible, and thoroughly disinfect the genital tract by intra uterine injections of carbolic acid or mercuric bichloride Wash the external genitals three or four times daily, and disinfect once a day by carbolic acid or mercuric chloride solution Close all lacerations of the perineum and vagina under strict antiseptic precautions, as by the continuous catgut suture Iodoform dusted over the raw surface favors union A powerful contraction and retraction of the uterus greatly helps in securing immunity from invasion of putrefactive bacteria, hence the value of Crede's method in expelling the placenta

Dr H Grey Latham, of Lynchburg, presented the

REPORT ON ADVANCES IN SURGERY

The report gave a running sketch of the discussion before the American Surgical Association on the "field and limitation of operative surgery of the human brain," disapproved of extirpation of the larynx and trachea, spoke favorably of drainage of the lung for gangrene, etc , and mentioned that laparotomies for many purposes are now established operations, as for strictures of the intestines, strangulations, excisions of organs non essential to life, etc Do not wait too long in strangulations of the bowels Operate as soon as diagnosis of strangulation is clear Operate as soon as vomiting sets in Cut down so as to get at the caecum If this is distended, the cause of obstruction is below, if it be collapsed or not tense, the obstruction is above If the strangulated coil of bowel is found to be gangrenous, the gut should be resected, and an artificial anus established When laparotomy is rejected, adopt Nelaton's operation of enterotomy, performed in the right iliac fossa Dr Latham lays down as propositions, 1st, that the best guide to the seat of an obstruction is not manual exploration, but visual examination, assisted, if necessary, by extrusion of the bowel, and, 2d, no case of operation for intestinal obstruction is properly concluded until over distended bowels are relieved of their contents

The latest *operations for hernia*, obliteration of the sac or closing the neck are the guiding points, and invagination has been laid aside or neglected *Digital dilatation of the pylorus* has been performed successfully for chronic non malignant stricture Make an incision in the stomach, introduce a finger through the opening and forcibly distend the stricture In *operative treatment of a rectal cancer*, the following are said to be reliable guides

1 If the finger cannot be passed beyond the disease, unless it is confined to the posterior wall, do not operate

2 The growth can be removed at a somewhat greater height when the disease is confined to the posterior wall

3 If when the finger has passed beyond the disease, the bowel is movable on the adjacent structure, generally speaking, the growth has not extended beyond the rectal walls and the case is suitable for operation, but if the bowel feels hard, rigid, and firmly bound to the surrounding organs, the case is unfavorable for an operation

4 Examine carefully the abdominal viscera, and if secondary deposits be suspected in the liver, no operation should be performed

Dr Rives Tatum, of Harrisonburg, Va , presented the report on

ADVANCES IN PRACTICE OF MEDICINE

He called attention to the prevalence of cholera in Spain, and to the methods of Dr Ferran for its prevention by inoculation His methods, however, had been pronounced uncertain, and did not prevent an attack of cholera Also that an attack of cholera did not prevent a subsequent attack The local anaesthetic cocaine, that has lately come into such great prominence as an alleviator of pain, was referred to, and its use in the treatment of coryza, hay fever, and fissured nipple, was specially mentioned Attention was called to the *ammonia treatment of typhoid fever*, as advocated by Dr S K Jackson, of Norfolk, Va Also to the mercurial treatment of typhoid fever and diphtheria, and the reduction of mortality in both diseases The *unity of tuberculosis and scrofula* was referred to, and the increase of the former and diminution of the latter trouble were dwelt upon Mention was also made of the exceeding rarity of idiopathic peritonitis, and it was said that peritonitis now is generally regarded as a symptom of some change of organic structure, and that its treatment should be prompt and radical In nervous troubles, attention was called to the curability of many obscure diseases heretofore thought to be incurable Eighty-five per cent of cases of locomotor ataxia are of syphilitic origin, and frequently curable

The report further called attention to the existence of sugar in the blood of carcinomatous patients, and peptone in sarcoma, and to the great aid these things will be in diagnosticating internal tumors

CLINICAL NOTES ON CARCINOMATOUS AFFECTIONS OF THE DIGESTIVE ORGANS—THE UNRELIABILITY OF GASTRIC SYMPTOMS AS EVIDENCES OF GASTRIC PATHOLOGY,

was the title of a paper by Dr R C Powell, of Alexandria, Va He first gave a description of carcinoma, *clinically considered*, and reported several cases showing the obscurity of diagnosis The cases illustrate two points of diagnostic importance (1), unreliability of gastric symptoms as evidences of gastric disease, and (2), the great value of cachexia as corroborative evidence of malignant disease Dr Powell regards the cachexia as a more certain sign of cancer than the presence of a tumor As to treatment, the indications are to sustain strength and to relieve pain A judicious selection of food is necessary if the stomach be involved Fatty, saccharine and starchy food are digested chiefly in the intestines, and these are best when the stomach is diseased If the pancreas is the diseased organ, give meats, albumenoid substances, milk, etc , which are digested in the stomach, but let all food be pancreatized before it is used If the liver is the diseased organ, allow both meat and fish, but not salted nor highly seasoned Salt water fish are believed to be best Fruit and vegetables—raw or cooked, as preferred—are allowable Permit "amusement without excitement, exercise without fatigue, and nutrition without stimulation" To relieve pain and procure sleep, use opium or morphia Fowler's solution, combined with bichloride of mercury, carbolic acid and tincture of iodine—one drop each—and bismuth subnitrate, are the commonly used medicines When bismuth is combined with atropia, it is useful in the salivation of cancer Cundurango and Chian turpentine have passed into oblivion, and alveloz will soon also be forgotten

Dr M A Rust, of Richmond, read a paper on

THE ETIOLOGY OF ZYMOTIC DISEASES

He commenced with the evolutionary history of bacteria from their discovery by Leeuwenhock, 1682, to the present time The germ theory was evolved from the fermentation theory—the morbid process of zymotic diseases being regarded as analogous to fermentation—the contagium playing the rôle of the leaven, exciting fermentation in the blood and humors of the body When Liebig appeared with his fascinating physico chemical fermentation theory, his application of it to explain the morbid process of zymotic diseases was generally accepted, and for a long time, *his* theory kept the yeast plant, which, since its first discovery by Leeuwenhock, had been repeatedly discovered, forgotten and rediscovered, in the background When, finally, mainly through the efforts of Pasteur, the yeast plant was universally recognized, the medical mind, dropping Liebig's theory, came to the conclusion that, if the active principle of fermentation be a living organism, the contagium of zymotic diseases must also be living matter Thus the germ theory was ready to spring into life, its way could never have been paved by practical medicine or clinical observations, the pathfinders were botanists, biologists, etc, who, by their researches and experimental studies concerning the etiology of certain epidemic diseases amongst plants and insects, disclosed in every instance, as incontrovertible and primary cause of the disease, the action of a low form of life Dr Rust then gave a detailed description of the silkworm plague and its stay by Pasteur It now stood clear before the minds of the young medical generation that similar organisms must be found as primary cause of the infectious diseases of mammalia, man included And they were found at first, perhaps, in too great redundance for the credit of the theory

Dr Rust divided microbes into three classes those which are undoubted, those of questionable character, and those whose existence is placed by induction and analogy almost beyond doubt The rapid progress made within the last decennium justifies the hope that all remaining obscurities as to the relation between microbes and disease will soon be elucidated After this, however, there still remain three perplexing questions

1st Whence come these numerous species of microbes? The view hitherto entertained, that microbes or germs are held in suspense by the air we inhale, or by the water we drink, Dr Rust thinks to be fallacious Any substance present in the air of a locality must have its source in the soil, or emanate from an object on the soil whence it is continually renewed, and what the water contains in solution or suspension is also derived from the surrounding soil or has found its way into it from without The soil, from the surface down to a considerable depth, is the habitat of the bacteria, whence they arise in the form of the finest dust Not from the streets of our overfilled cities (provided they are broad enough to give free access to sunshine) rises this dust, it rises from the soil into our crowded, unventilated houses as the smoke from the hearth is drawn up into the chimney No amount of sanitary measures hitherto devised will save a densely populated city from dying out in two or three generations (unless filled up by immigration), so long as the modern architect is allowed full sway Dr R discusses the various views advanced concerning the transmutability of bacteria—the change from the specific into the non-specific form and *vice versa*—and holds that our present state of knowledge admits neither affirmation nor denial

The second proposition is How does the morbid process of bacterial disease ever come to a happy end? Since the development of the germ theory we have arrived at the perception that we have to reckon with two factors—the cellular resisting power on the one hand, the degree of virulence and the numbers of the invading microbes on the other The numbers are of the greatest importance If a few microbes were sufficient to generate disease, what would happen to the doctors who are daily and hourly exposed to their onslaught? Infection or immunity, abortive or fully developed form of the disease, recovery or fatal end, are the resultants of the correlation between cellular resisting power and the intensity and numerosity of the invading microbes

But how shall we physiologically conceive this cellular resisting power? On this point we are still in the dark—a gleam of light is, however, dawning in the distance The white corpuscles, leucocytes or migratory cells, which circulate in the blood, are to be met with in every multi cellular organism, constituting the blood of the white-blooded animals, and being present in the tissues of the lower animals which have no vascular system—these leucocytes, identical with the amœba found in all stagnant waters, have formed the object of the particular studies made by Dr Metschnikoff, of Odessa He could only make his experiments on animals (bipinaria asteridæ, etc), which are of such exquisite transparency that all occurrences within the living animal can be accurately observed from without Just as we see the amœba eating under the microscope, Metschnikoff could observe through the transparent teguments of these animals the leucocytes eat up all foreign bodies It seems that by the division of labor in the multicellular organism, these leucocytes (which Metschnikoff has named phagocytes, eating cells) have assumed the task of eating up all heterogeneous and waste matter and eliminating what they cannot digest The question now arises whether the phagocytes, if they eat up all foreign bodies, could not likewise eat up intrusive microbes? The experiments hitherto made by Metschnikoff seem to answer us in the affirmative, and should these experiments and observations prove conclusive, recovery or fatal end of the disease will depend on the proportion between the number of the phagocytes and the number of the microbes. The impenetrable mystery of the cellular resisting power will have resolved itself into a prosaic, tangible eating power.

The third question is "How is immunity affected through vaccination?" There are numbers of untenable explanatory theories in the field. Instead of descanting upon them, as was his intention, Dr. R. refers to the exhaustive criticism of these theories by Dr. Sternberg, U. S. A., which appeared in the *London Lancet*, June, 1885. In his explanation of immunity, Dr. Sternberg rightly assigns the first rank to vital power—but the causative relation of vaccination to immunity still remains unexplained.

Will Metschnikoff's eating cells bring a solution? Minds prone to speculation might, even at this early hour, be led to advance the following theory: that the first meal of microbes eaten by the phagocytes may prove so acceptable that, in future, they will always be ready to consume any reasonable number of the same kind of microbes that may present themselves—and this theory would rest on foundations possibly more solid than those of any other theory concerning vaccination yet in the field.

Prof. M. L. James, of Richmond, read a paper entitled

DYSPEPSIA WITH NEURASTHENIA AND SOMNOLENCE.

He announced his purpose to make the paper brief and practical, and to write only from his personal observations. He noticed the fact that, although this morbid association was very often a serious inconvenience, and sometimes a grave disability, it had been comparatively little discussed in the literature of the profession. He referred to the fact that it sometimes seemed that neurasthenia might be a result simply of dyspepsia, in part from the interference with nutrition, and in part from a species of nervous shock, differing, of course, in degree from that described in surgery. Oftener, however, he said that it resulted from this condition associated with the nervous exhaustion, brought on by various causes, most frequently, perhaps, by severe mental efforts, watchings and anxiety; very often by the excesses of dissipation, over stimulation, excessive venery and masturbation. He referred to the fact that, while dyspepsia produced neurasthenia, that neurasthenia also aggravated the dyspepsia, and hence suggested that in treatment, the relations which they bore to each other should be constantly borne in mind; that it was a matter of prime importance for the relief of the dyspepsia that the forces of innervation should be maintained in the utmost possible vigor. That while digestion was a chemical process which might be accomplished in the retorts of the laboratory, it was also greatly influenced by the force of innervation, as has been demonstrated not only by experiments but by everyday observation.

He emphasized the importance of securing to the patient ample sleep as a means of fitting him to sustain the effort of digestion the succeeding day. While the province of his paper was not to go into the discussion of the various forms of indigestion and their special management, it was a proper consideration in the treatment of these cases that it should be considered by the physician, and the treatment and diet adapted to that end. That in all of these cases the diet should be that which is easiest of digestion, and at the same time afford an adequate amount of nutrition, especially in the form of phosphates. The phosphates of food are the best of the vitalized phosphates. An hour or two succeeding the morning's meal should be spent in pleasant mental occupation, scrupulously avoiding anything that could be considered positive mental effort, especially reading and writing, public discourse, or even close attention to such discourse. No laborious effort of mind or body ought to be taken until the process of digestion was well advanced, especially reading and writing, and in bad cases until nearly completed, and that no labor soould be sustained to the condition of positive fatigue.

He referred to dinner as the ordeal most trying in this morbid concatenation, and for that reason that the patient should be put under a certain sort of *training* for the effort of digestion for that meal. No sort of food ought to be taken between breakfast and dinner, and that a sufficient time ought to be allowed to elapse before partaking of dinner, to allow a complete digestion of the morning's meal with a period of rest to the digestive organs, and that the nervous system should be reinforced for the digestive effort at dinner by a period of recumbency lasting from half an hour to two hours, according to the severity of the case, previous to partaking of it, with sleep if procurable, which may be acquired easily by habit.

The articles of dinner also should be easy of digestion and nutritious generally, including a reasonable richness in the phosphates. That a period of relaxation should be taken after dinner with gentle mental occupation, and gentle exercise, preferably passive exercise in a carriage or on horse-back, until the process of digestion should be well advanced. He admonished particularly against the dangers of any active mental effort, including reading and writing, or public discourse. Supper should consist of lighter and more digestible articles of diet than the two preceding meals, and should not be taken until dinner was thoroughly digested and the stomach had had its period of rest, and that there should be entire abstinence from tea and coffee, as being likely to interfere with the coming night's sleep. He emphasized the fact that while medicines were necessary, some such regimen as that he had indicated was equally necessary. He also indicated that while such agents as caffeine would avert one of those oppressive spells after a meal, that pure stimulants were not suited for the cure, and for that reason that tonics, in combination with agents, which in more moderate doses had a stimulating effect, were the remedies to be used. Premising that digestion had been aided by pepsin and other digestive ferments, he said that alcoholic drinks in strictly stimulating doses were useful, but if carried a step beyond the condition of stimulation to the sedative influence was positively injurious He indicated the annexed formula as a convenient form of combining the remedies suited to these conditions, from which he had experienced the best of results

℞	Quiniæ phosphat	gr xvi	
	Strychniæ phosphat	gr 1/6	
	Acidi phosphoric (50 per cent)	m xx	
	Caffeine citrate	gr xii	
	Glycerin puræ		
	Spts vini rectificat	aa f℥ss	
	Tr cardamomi co	f℥j	M

S —One or two teaspoonfuls immediately before or after breakfast and dinner, to be repeated, if necessary, every hour or two till the nervous depression is relieved, or every half hour, till one or two doses are taken, if the depression be heavy

In such extreme cases where the powers of digestion were greatly enfeebled, he suggested the use of concentrated food in liquid form, and especially predigested foods, and in cases where the stomach was disordered to that extent that it would not tolerate such medication, that these remedies, especially in the forms of predigested food, should be administered by the rectum

(*To be concluded*)

CHICAGO MEDICAL SOCIETY

Stated Meeting, September 21, 1885

THE PRESIDENT, C T PARKES, M D , IN THE CHAIR

DR CHARLES F SINCLAIR read a paper on

SPECIAL VERSUS GENERAL STUDY IN MEDICINE

The medical profession, he thought, should look with favor upon the subdivision of medical work, because we see such vast accumulations of material in all the various departments of medicine that few would care to undertake, or have the ability, to even peruse our medical literature, much less master all the knowledge collected In this day of rapid interchange of thought, none can be found who can keep abreast of all the discoveries in the various departments of medicine Another reason for the existence of the specialist is the fact that very few men can secure the expensive instruments necessary to be used in the treatment of the various diseases, nor are there many physicians who could skilfully use them were they so fortunate as to possess them Many cases cannot be successfully treated without these instruments In our city, specialties should receive further development, because as they are clearly defined and faithfully adhered to in practice, proportionately does the city rank as a medical center

DR W F COLEMAN said that while he agreed with the author in the main points in his paper, he thought it should rest with each individual whether he shall confine himself to special practice or emphasize it in general practice It is advantageous to specialists that they should confine themselves to their chosen fields But we should not judge of the benefits to be derived from specialties by the individual success of each practitioner, but by the extent each practitioner enriched our literature by the record of his investigations It is thus that the eye and ear specialist, the specialist in throat and lung diseases, the laryngologist and others have done most to advance medicine

DR L T POTTER read a paper on

THE TREATMENT OF SYPHILIS

He said that the treatment of syphilis must be threefold—hygienic, tonic and specific By the latter is meant the administration of mercurial and iodine preparations The profession seems to be greatly divided in opinion in regard to the methods of using these remedies and the length of time they should be employed In scanning the literature on this subject, the reporter was surprised to find that those high in authority differed as to these points The reporter advanced two propositions first, that neither the iodine preparations alone, nor mercury alone, can always be relied upon as effective in the treatment of syphilis, but that *both* are necessary to eradicate the disease, second, that the duration of treatment must be at least two years, faithfully carried out, no matter how mild an attack In support of his first proposition, the reporter quoted Bartholow, Ringer, Jonathan Hutchinson, Keyes, Bumstead and Taylor as saying that mercury should be given in the primary and secondary stages of syphilis, and iodine of potassium in the tertiary stage They all agree that both must be used to effect what is called a cure In support of his second proposition, he quotes Van Buren and Keyes, Fournier, Bumstead and Taylor, as insisting upon the treatment extending over a course of two years or more Diday says the minimum time for treatment is twenty two months The two year course of treatment does not mean the continual administration of mercury or iodine, but at intervals the remedy may be discontinued for a short time, if it seems to have a debilitating effect on the patient In the light of such unanimity of opinion of eminent authorities upon this question of duration of treatment, it is surprising that intelligent physicians will positively assure their patients that they are *cured* of syphilis at the expiration of a course of treatment lasting from four to six months!! A physician who does so, is certainly criminally negligent Then it becomes all to impress upon patients the importance of carrying on the treatment for at least two years

DR E L HOLMES said that he considered the paper very valuable, because the author lays so much stress upon the importance of thorough and long-continued treatment One of the most important lessons he had ever received was to treat syphilis according to the plan the gentleman had advocated Many years ago he had been taught this lesson by sad experience It had been his lot to see many patients suffering from specific diseases of the eye long after they had been discharged by their physicians as cured He could not understand how any physician can believe it possible to cure syphilis without carrying out the treatment a long time In many years' practice in this city he cannot remember of having seen but three primary syphilitic lesions, and these all occurred on some portion of the eye He saw one man who had on the upper eyelid a sore which resembled and was treated as a burn, until its course decided it to be a chancre The man would not tell how he obtained it, but it readily disappeared under specific treatment A great many diseases of the eye occur thus, and the physician is unable to find out how they arise Many years ago it was taught that iodide of potash, if given in large doses, would effect a sure and speedy cure But Dr Holmes thought the treatment by large doses of iodide dangerous, as it ameliorates the symptoms so quickly as to cause the physician and patient to abandon the remedy too soon He thought it best to give the patient all the mercury he can bear in the primary and secondary stages Rub it in the skin and give it internally Follow this up eighteen months or two years, and then give iodide of potassium later Every three or four months give a course of treatment for years after You will have no trouble impressing upon intelligent people the importance of long-continued treatment

Dr R Tilley said he wished to refer to one point not touched in the paper, and that is, patients treated for syphilis are often told by their physicians of the importance of long continued treatment, but they will not heed these warnings and do not return This fact will excuse the physician many times, as it is not in his power to carry out the treatment when he wishes, and thus physicians should often be relieved of the blame of not having treated their patients long enough He did not think any intelligent physician would advocate treatment under two years, and he believed Keyes, in his last edition, extended the time of treatment to four years Dr Tilley was of the opinion that we cannot do without mercury, and yet some in high places teach this doctrine Those who try to treat syphilis without mercury are certainly responsible for later developments

Dr J Zeisler thought the present treatment of syphilis is not scientific, and that there had been little advance in this direction in the last century Cases are known in which, after seven years' treatment, symptoms of the disease returned Take the case of Prof Zeissl, who died last year He was infected while opening a bubo several years ago He certainly knew how to treat himself, and yet he died of cerebral syphilis This does not look as though the treatment of syphilis is yet founded on a scientific basis If the discovery of the bacillus of syphilis proves to be correct, it may prove the means of enabling us to treat syphilis scientifically

Dr G C Paoli said he is by nature a cosmopolitan, and always selects the best from the writings of all nations A great many books have been written on this subject, among which Ricord's stands first Ricord was a man of great talent, experience and powers of observation He had unexcelled opportunities for study in the Paris Hospital when he was the chief physician In regard to treatment, all agree that mercury must be administered for a long time There are syphilitic cases in which mercury is contraindicated, namely, phthisical patients and in albuminuria, unless we believe syphilis is the cause of the albuminuria

Dr R Tilley referred to one point introduced by Dr Zeisler, who referred to Professor Zeissl as having died of cerebral syphilis, claiming that no one would doubt Prof Zeissl's ability to cure syphilis But the question is not whether Prof Zeissl knew how to treat syphilis, but how did he treat himself? Cooper, in his book on syphilis, if he (Dr Tilley) were not greatly mistaken, cites Prof Zeissl as a type of those who used mercury sparingly If that is so, and Zeissl used it only sparingly on himself, then the death of Zeissl from cerebral syphilis is a very important lesson, and bears materially on the subject under discussion

Dr Zeisler said he knew that in the case of Prof Zeissl mercurial inunctions were made, but to what extent he was unable to say

Dr L T Potter closed the discussion by expressing himself as gratified at the amount of discussion which had been aroused, however, he was surprised at the statement that there had been little or no advancement in the treatment of syphilis In this day of elegant pharmaceutical preparations and easy administrations of mercurials and iodides, he thought there had been a great advancement, for pharmacy and chemistry have stepped in and given us preparations we did not use many years ago Mercury should not be given when it is producing a debilitating effect

The President, Dr C T Parkes, presented

A SPONGE REMOVED FROM A UTERUS

A short time ago he was called to see a lady who had been treated by a physician who introduced a sponge tent into the cervix uteri, and instructed the lady to allow it to remain two or three days, and then pull it out She attempted to do so, but the string broke and the sponge was not obtained After three weeks of suffering, with a discharge per vaginam, Dr Parkes was called to see her By digital examination he could not find any evidence of the sponge, the external os being closed so as to merely admit a probe But he could not find any sponge by probing, so he introduced an Ellinger dilator, and soon seized the sponge with a forceps and brought it out The symptoms present passed rapidly away, and the patient is now well The point to be learned is, that when a physician introduces a sponge tent, he himself should remove it

MISSISSIPPI VALLEY MEDICAL SOCIETY

(Formerly Tri-State)

Eleventh Annual Meeting, held in Evansville, Ind, Sept 8th, 9th, and 10th, 1885

(Concluded from page 390)

Dr Wm A Byrd, of Quincy, Ill read a paper on

TETANUS

(See page 399)

Dr Geo B Stewart, of St Louis, had used Fowler's solution in tetanus, but was unable to say whether it had been the means of cure or not He thought the pathology of the disease was very little known He reported a case of recovery from both trephining for injury to the skull and tetanus He agreed with

Dr Byrd that arsenic should be given in gradually increasing doses, as much as the patient can bear All the cases he has known to recover have done so under arsenic,

DR WM PORTER, of St Louis, reported a case of severe tetanic convulsions from a slight bruise on the finger, which had been covered with collodion Chloral was given but no arsenic used Recovery followed

DR G V WOOLEN, of Indianapolis, had found sponging the injury with a solution of chloral to act very well

SECOND DAY—AFTERNOON SESSION

DR G V WOOLEN, of Indianapolis, read a paper on

NASAL STENOSIS

The writer first called attention to the want of attention in former times to nasal disease, and the very great advance made towards a correct knowledge of it in the last ten years, thus accounting for want of correct appreciation by the profession at large which still exists He then briefly detailed the peculiarities of the anatomical construction of the nasal and accessory cavities, specially adapting them to the performance of their physiological functions, viz Olfaction, respiration, conduction of secretion to the pharynx, and as an accessary to articulated speech The title of the paper called attention only to a symptom of disease, but it and other symptoms often became of such importance as to demand attention as a disease

The chief causes are hypertrophy of turbinated bodies and mucous membranes, deviation of septum, adenoids, polypi, exostoses, and hypertrophied pharyngeal tonsils The degree of stenosis did not always denote the degree of disturbance, as is now well appreciated in the causation of hay fever The disturbances which follow were discussed under the following heads 1st Interference with the respiration act 2d With the natural flow of secretion 3d With speech and song 4th With olfaction It is difficult, in dealing with a given case, to determine which of these is the most important Intemperance with nasal breathing soon establishes disease of other parts of the respiratory organ by producing mouth breathing, a most dangerous practice, which often does not cease after removal of the cause

Attention was then called to the warming and moistening of the air and extraction of dust and other impurities in normal nasal breathing, most important functions, and when interrupted become etiological factors of disease of no small degree The law of catarrhal disease is that of descent, so that much that is supposed to originate in the lungs possibly does not, as one, if observant, is not long in noticing pharyngeal, laryngeal, bronchial and other such maladies disappear after the removal of obstructions higher up, especially nasal stenosis Attention was then called to defective drainage of secretions of nose, eye and accessory cavities The peculiar conformation of the nose is especially adapted to the drainage which was shown to be interfered with by any disturbance of the contour of the parts Evaporation and inspissation at once lead to clogging and dropping in pharynx of secretions, and their retention in the various cavities, giving origin to ozœna, and all of the direful results Without nasal breathing there can be no successful smelling, which function, being in the superior tract of the nose, is easily interrupted by stenosis Taste and smell are so intimately associated that their reciprocal functions depend upon that free passage way of the nose Good smelling and taste make eating one of the chief luxuries of life Our schools are full of children vainly trying to articulate successfully owing to enlarged nasal and pharyngeal tonsils The nose is an important resonance-chamber, and if by any cause obstruction occur, great modification in tone must ensue, and much that is supposed to be the result of faulty education and physical peculiarities is in fact the result of obstruction of this function

DR WM CHEATHAM, of Louisville, said that he thought Dr Woolen had failed to refer in his paper to nasal stenosis as a cause of asthma and hay fever It is now a well known fact that one of the principal factors in the production of hay fever is situated in the nose, and often depends secondarily upon nasal stenosis There are three factors which must be present to produce hay fever "an external irritant," as pollen, etc, "a predisposition on the part of the system to become influenced by this irritant," and "a vulnerable or sensitive area through which the system becomes influenced by the irritant" Since these three factors have been recognized, "hay fever," which to this time was considered among the incurable diseases, now is among the most readily relieved The sensitive areas are located in the region of the distribution of the spheno palatine ganglion, that is, on the inferior and middle turbinated bones and the pharynx That these sensitive areas are so situated is proved by their irritation by means of a probe By this means all the symptoms of "hay fever" can be produced, and by the destruction of these areas by means of acids and caustics hay fever is cured, also that by anæsthetizing these areas by means of the muriate of cocaine, all the symptoms of hay fever are relieved "I do not care how much stenosis we may have, we must have the sensitive areas before we can have hay fever"

DR WM PORTER, of St Louis, read a paper on

SOME ERRORS IN PHYSICAL DIAGNOSIS

(See page 345, Vol V, No 13, this JOURNAL)

DR ARCHIBALD DIXON, of Henderson, Ky, read a paper on

PROGRESS IN MEDICINE

A review of the history of medicine during the past year will show that solid advances have been made in methods of treatment, remedies of value have been added and the usefulness of older ones confirmed The introduction of cocaine as a local anæsthetic, had nothing more been done, would mark this as a year ever to be remembered by our profession

The great question now is, is cholera a preventable disease, and if so, can it be kept from our land? There is no doubt that each and every visitation has been the result of importation Now the point to be determined is, is the germ origin of the disease the true one? Is the germ always present in cholera? Is it ever present elsewhere? Koch maintains that there is a definite organism associated with cholera, and this opinion is supported by many of the best men of our profession both in this country and in Europe After discussing the bacillus question in all its phases, he thought that it followed that the poison of cholera must be a micro organism, for nothing but a living thing could reproduce itself, and he considers that Koch's position, so far, has remained unassailable If, then, the germ theory of cholera be true, and it be a contagious and portable disease, then, as a matter of course, it must be admitted that it is a preventable disease, and the point at once arises, how can we most easily destroy these germs? The answer is, by disinfection and the proper use of germicides, with a sufficient quarantine to guarantee detention until this process is complete Detention without disinfection is not effective With the efficacy of germicides, quarantine should become what it is intended to be, not a delusion and a snare There is no better plan presented than that of Joseph Holt,[1] M D , President of the Louisiana State Board of Health, which the doctor presented in his paper Perhaps in New Orleans, whose people have been so often scourged, these precautions of Dr Holt will be carried out, but not elsewhere Dr Rauch,[2] Secretary of the State Board of Health of Illinois, says that if no vessel were allowed to leave a port infected with cholera or carrying persons or things from an infected region, without being first made secure against the possibility of carrying the disease, it would of itself render unnecessary all other means of combating cholera, so far as we are concerned But this has never been accomplished During the existence of Asiatic cholera in Europe this country is only safe when a system of sanitary supervision is practised over the immigrant and his effects The instructions of our best sanitarians, if carefully heeded, will demonstrate that cholera can be kept from our country The Royal Italian Society of Hygiene has arrived at conclusions which, owing to their experience with the cholera during the past year, are worthy of receiving great consideration

Evening Session

Dr N M Baskett, of Moberly, Mo , read the history of a case of

PISTOL SHOT WOUND OF THE MOUTH

It was from a 32 calibre revolver, and occurred in a young mulatto woman The ball entered on the inside of the mouth, about the junction of the ramus of the inferior maxillary with the body of the bone, and extended slightly inwards and markedly downwards, barely missing the tongue, piercing the pillars of the fauces near the right tonsil, and losing itself in the muscles of the neck The probe passed inwards and downwards, and indicated a course which would have brought the ball to the surface on the back, at a point midway on a straight line drawn from the spinous processes of the first dorsal vertebra to the middle of the spine of the scapula But the probe did not pass one half the distance from the ramus of the jaw to the point indicated, and, as the bullet could not be felt, it was evident that its course must have changed At the point of the shoulder was another wound, extending upward and inward directly towards the line which the other wound would have made, had the course of the bullet continued The patient was positive that the wound in the left shoulder was made first and by the first shot fired, and the wound in the mouth made by the third shot The second shot had missed her entirely

There was but little hæmorrhage from either wound, and the woman suffered but little from shock Probing the wound of the left shoulder indicated that the bullet was probably located near the left of the spinous process of the first dorsal vertebra, and was not considered dangerous

The wound in the mouth had evidently been made while the mouth was open, as there was no external wound We had, then, a wound covered by the masseter, and other facial muscles, in the first part of its course, and the ramus and body of the inferior body of the inferior maxillary In the second part of its course, the fascia, muscles and vessels of the infra-maxillary space, and thirdly, in the neck, where the course of the bullet was lost, it was covered by the integuments, fascia, sterno cleido mastoid, and omo-hyoid muscles, and in close relation to the important blood-vessels and nerves of that region The wound was cleansed, opium administered, and for the first few days the woman did well Fever, not excessive, presented itself, and the wound suppurated and discharged greatly It was syringed out twice daily with an antiseptic solution The patient's condition was considered fairly good up to the day of her death

On the evening of the seventh day hæmorrhage occurred, and considerable blood was lost before it could be checked by the use of various astringents, styptics and coagulants She was much prostrated In about an hour the hæmorrhage returned, and in spite of all efforts to check it she expired in about five minutes

The autopsy showed that the muscles of the neck along the course of the wound were in an inflamed and almost gangrenous condition The secretion of pus was enormous, and of a very unhealthy character Dark bloody clots of decomposed blood existed along the course of the wound in close proximity to the blood vessels, which appeared to be inflamed It seemed that hæmorrhage had occurred from the facial artery close to its origin with the carotid The bullet which produced the wound was found resting on the first rib close to its junction with the vertebra The bullet which entered at the point of the left shoulder was found lying close to the spinous process of the first dorsal vertebra, as we had anticipated

The remarkable features of this case are 1 The location of the principal wound, 2 The absence of marked shock, 3 The inflamed condition of the great blood-vessels of the neck revealed by the autopsy, 4 The extensive infiltration of the muscular tissues with pus, and the absence of any symptom of pyæmia up to the time of death

---

[1] Review of Quarantine and Maritime Sanitation by Joseph Holt M D New Orleans 1885

[2] North American Review August 1885

Dr S C Charlton, of Seymour, Ind , discussed the question

IS THERE A TYPHO MALARIAL FEVER?

He does not propose to definitely answer the question, but to give some reasons for believing in the prevalence of such a fever to a large extent throughout the Western and South-Western States Since the publication of Dr J J Woodward's report, in 1862, of a fever which prevailed in the U S A, which, after careful study, he denominated as typho-malarial, there has been much controversy in regard to the accuracy of the name In large cities there is much decaying organic, and in the country much decaying vegetable matter, which is the cause of malarial disease, but never the cause of specific infectious disease But when the spores of infectious disease are introduced into the system, already under the influence of malaria, they as certainly produce the phenomena of typho malarial fever as the "pathogenic spores" of the various infectious diseases will produce their special disorders, or the specific poison of typhoid fever will produce that disease Accepting this view with regard to septic poison, we can readily understand why hydrant water containing septic matter may develope typho malarial fever, as was the case in Evansville four years ago

All writers admit the strong analogy between typhoid and typho malarial fever namely diarrhœa, tympanites and iliac tenderness The symptoms become more or less marked during the second week of the disease The characteristic eruption of the typhoid fever may be observed Low delirium, deafness, subsultus tendinum, etc , occur more frequently, earlier, and are more marked than with the simple remittent Enlargement or suppuration of one or both parotids are sometimes noticed The forming stage is longer than in simple remittent The fever is longer and its gravity greater Perforation of the intestine is liable to occur Bronchitis and pneumonia are frequently developed Convalescence is more protracted In some cases the phenomena of typhoid fever and of periodical fever are intermingled, in varying proportions, in some the periodical, in others the typhoid phenomena predominating Cases of typho malarial fever occur in most if not all malarial regions, which shows that the special cause of typhoid fever is not held in abeyance by the presence of malaria The extinction of malaria is followed by cases of unmixed typhoid fever, as if the latter followed in the wake of the former Dr Flint says, that typho malarial fever is caused by the combination of malarial and the special causes of typhoid fever It has been said that remittent fever becomes converted into typhoid fever This is not accurate There is not a metamorphosis of the one disease into the other, but a combination of both diseases The changes which take place in the blood in typho malarial fever, so far as we are able to determine, are similar to those which occur in typhoid fever, combined with those which are characteristic of malarial fever

The published literature on typho malarial fever is scarce, Drs Flint and Loomis being the only two authors who have gone into the question thoroughly, and they do not agree as to its etiology In the writer's opinion, Dr Loomis is correct, and if the name "typho malarial fever" is not correct, he would suggest that we call it septic remittent Typho malarial fever is not characterized by the typical course observed in typhoid, but varies as the septic or malarial poison predominates It is generally ushered in by a distinct chill, and in some instances without premonitory symptoms This is followed by a high temperature, varying from 103° to 104°, and a pulse of 100 It is frequently noticed that the pulse becomes slower during the second and third weeks, falling from 100 down to sixty, so that we sometimes have a comparatively slow pulse, throughout the course of the disease, and sometimes with a temperature of 103° the pulse beat will not exceed sixty or seventy Another point in this connection is that if the special cause of typoid fever is necessary to the development of the typho malarial fever, why is it that we have a hundred cases of typho malarial fever in a few months, and not a single case of well-marked typhoid, as was the case in Seymour during the past year? It may be that the presence of malaria is sufficiently potent to hold this special cause, whatever it may be, in abeyance

In conclusion, he said that he was satisfied with the name, typho malaria, as the most appropriate for this form of fever, and until future study shall give a word more expressive of that disease, he will cling to it and treat the disease accordingly

Dr Amos Sawyer, of Hillsboro, Ill , read a paper on *The Relation of Mind to Matter,* Dr H J B Wright, of Olney, Ill , a paper on *Three Cases of Nervous Disease, with Special Reference to Pathology,* and Dr James H Letcher, of Henderson, Ky , a paper on *Cat-Gut Ligatures*

THE ADVISORY COMMITTEE

appointed on the previous day, after several meetings, made the following recommendation

1st That the organization by sections be dispensed with,

2d That a Committee on Programme, consisting of three, be appointed by the Chair,

3d That the next meeting be held the second Tuesday in July, 1886,

4th That papers alternate, medicine, surgery, obstetrics,

5th That book matter, generally known, be omitted from the papers,

6th That new things be presented,

7 That greater brevity be practiced,

8th That more patients and specimens be presented Adopted

The President appointed the following

COMMITTEE ON PROGRAMME

Drs G V Woolen, of Indianapolis, Amos Sawyer, of Hillsboro, Ill , and Wm Porter, of St Louis

The Committee on Nominations reported the following

OFFICERS FOR THE ENSUING YEAR

President, Dr Arch Dixon, of Henderson, Ky , 1st V Pres't, Dr G W Burton, of Mitchell, Ind , 2d V Pres't, Dr T D Washburn, of Hillsboro, Ill , 3d V Pres't, Dr Wm Cheatham, of Louisville, Ky , Secretary, Dr H J B Wright, of Olney, Ill , Treasurer, Dr F J Lutz, of St Louis, Mo

Adjourned to meet at Quincy, Ill , the second Tuesday in July, 1886

FOREIGN CORRESPONDENCE

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

The fifty-ninth session of this Association met this year for the second time in the Granite City of Scotland—Aberdeen Nineteen years ago was held its session here under the Presidency of the Prince Consort This year Sir Lyon Playfair presided, and read his address on Wednesday evening to an audience of about 3,000, gathered in the Music Hall, complimenting in the very highest terms last year's meeting at Montreal His paper was lengthy, taking in a wide range of practical thought He maintained, and gave figures in proof, that England was behind several other nations in appropriating funds for educational and scientific purposes, and referred warmly to Washington's farewell address as salutary advice on the importance of popular and scientific education —quoting his language The convention is divided into eight Sections, the mention of which will give an idea of the scope of study 1 A—Mathematical and Physical Sciences, 2 B—Chemical, 3 C—Geology, 4 D—Biology, 5 E—Geography, 6 F—Economic Science and Statistics, 7 G—Mechanical, 8 H—Anthropology

Prof McIntosh, as chairman of the Biological Section, in his opening address reviewed the subject of *Phosphorescence of Marine Animals,* dwelling upon the Nactiluca of the protozoa family, which he said was but "a gelatinous sphere" spreading its luminosity at times over large areas of the sea Nor did he neglect the crustacea and molluscs as phosphorescent generators, and thought, no doubt, this power enabled the inhabitants of the dark depths of the sea to see their way without the light of the sun He also alluded to the firefly and other luminous species, but did not venture an opinion upon the *modus causandi*—saying that was unknown to scientists

The history and comparative anatomy of the Fay whale—Megaptera Longimana—was ably and interestingly discussed by Dr Struthers, Professor of Anatomy in the Aberdeen University Prof Fowler maintained that the whale was derived from a four-footed land animal

Sir John Lubbock's subject was *Insect Instinct,* choosing the ant and the bee for study and illustration He thought it was curious that if a strange ant were mixed with a nest of 500,000 it would be recognized by every one at once almost, and dealt with as an intruder and enemy He thought the recognition was due to scent rather than to sight or feeling He had kept some queen bees under observation twelve years, and though their eggs were sterile, still ovation went on, and their joints were reasonably supple yet

Dr J McGregor-Robinson entertained the Section for more than half an hour, giving an ocular demonstration, by means of a complex apparatus, of the *Direct Action of Anæsthesia on a Frog's Heart* The frog's heart was suspended in a proper medium, and kept beating, each pulsation moving an indicator, which registered the variations, and was visible to the entire audience I asked the doctor to furnish me a statement of results as to the difference of effects of chloroform and ether, which is kindly given as follows

A marked quantitative difference was shown between the different anæsthetics used, as exhibited in the following tables which show the stimulating, reducing and paralyzing effects of the anæsthetics on the heart

	Stimulating	Reducing	Paralyzing
Ether	1 per cent	1$^1/$ per cent	2 per cent
Ethydine bichloride	$^1/_{0}$ " "	$^1/_{10}$ " "	$^1/_{[illegible]}$ " "
Ethyl bromide	$^1/_{0}$ " "	$^1/_{8}$ " "	$^1/_{4}$ " "
Chloroform	$^1/_{30}$ " "	$^1/_{0}$ " "	$^1/_{10}$ " "

A qualitative difference was also shown Ether and ethydine very much resemble each other The relaxation after each contraction was complete with chloroform and bromide of ethyl, though a marked difference was shown, the heart exhibited a great tendency to contract spasmodically around the canula So marked was this that it was difficult to pass fluid through the heart so as to wash out the drugged fluid This action was never observed after the heart had been fairly under the influence of ether and ethydine It was noticed in more than one case that the heart became spasmodically contracted around the canula immediately after receiving the first stimulating dose of the drug This occurred with ether as well as with chloroform With ether, however, it rapidly passes off, and does not recur after the influence of the anæsthetic is felt It did not so readily pass off in the case of chloroform Might not such action account for some deaths under the use of chloroform before any great quantity of the drug has been administered? The heart recovered speedily from the influence of ether, but slowly from chloroform Ether was found not to be cumulative, but that could not be said so decidedly of chloroform

Prof McCormick, on the subject of the *Action of Cold on Microphites,* said that cold and freezing only arrested development, but that *heat* would sterilize all fluids Referred to Coleman's method of freezing meat, 129° F , for transportation to distant destinations, and explained the curious methods of cultivating microbes Recurring then to the subject he said "Experiments discourage any practical hope of destroying microphites by cold Freeze paste and the water is crystallized, but the coloidal matter remains, so that on admitting heat again the water returns to its normal condition, the microbe, therefore, does not crystallize, but remains in waiting for warmth to restore it to its normal condition" Instances the similar condition of the frozen frog In this way life may be arrested and inertness maintained in a moderate way for almost any length of time, with complete restoration when returned to proper environments A rabbit had been restored, after being rigid, under a temperature of 150° F, for one hour and a half It has been demonstrated by these experiments that a temperature lower than that of any meteorological observation had been induced, and yet vitality restored by the application of heat

The museums and laboratories here are quite extensive, giving ample advantages, but hotel accommodations are altogether inadequate for such large bodies, for all are overcrowded, and lodgings are generally taken, so that even these are difficult to obtain A B T

Sept 12, 1885

MISCELLANEOUS

NEPHROLITHOTOMY —MR VICTOR HORSLEY removed a calculus weighing two and a quarter ounces from the kidney of a woman on September 16 There had been symptoms of renal calculus for four years Since the operation the urine, which was fœtid before, has become normal, and the whole of the operation wound, with the exception of the track of the drainage tube, healed by first intention within five days

THE FLOATING WASH HOUSES OF PARIS are to be suppressed in consequence of a report drawn up by Engineer to the Seine Navigation Bureau, they being considered dangerous to the health of the city

STATISTICS ON INSANITY —The International Congress of Physicians engaged in the cure of mental diseases was recently held in Antwerp The scope of the Congress comprises the bases of good international statistics concerning the mentally diseased, and the relations between criminality and mental disease The Congress has appointed an international committee to determine the headings for the bases of statistics regarding mental diseases

DR EDWARD O SHAKESPEARE has been appointed by the United States Government to go to Europe for the purpose of investigating the cholera The appointment reflects great credit on the Government

A CONGRESS OF RUSSIAN ALIENIST PHYSICIANS will be held in February, 1886

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY, FROM SEPTEMBER 26 1885, TO OCTOBER 2 1885

Col T A McParlin, Surgeon, directed to transfer his duties and the public funds for which he is accountable, as Asst Medical Purveyor, to Capt Henry Johnson, Medical Storekeeper, who will, in addition to his present duties, temporarily perform the duties of Asst Medical Purveyor, New York City (S O 223, A G O, Sept 29 1885)

Maj D G Caldwell, Surgeon, ordered from Ft Laramie, Wyo, to Ft D A Russell, Wyo (S O 97, Dept Platte, Sept 25, 1885)

Capt G W Adair, Asst Surgeon, granted leave of absence for one month, with permission to apply for one month's extension (S O 104, Dept Dak, Sept 18, 1885)

Capt Louis Buchmin, Asst Surgeon, ordered from Ft D A Russell, Wyo, to Ft Laramie, Wyo S O 97, Dept Platte, Sept 25, 1885)

First Lieut Geo F Bushnell, Asst Surgeon, ordered from Dept Dak to Dept East (S O 219, A G O, Sept 28, 1885)

First Lieut C N B Macauley, Asst Surgeon, relieved from duty at Ft A Lincoln, D T, and ordered for duty at Camp Poplar River, M T

First Lieut Wm L Knudler, Asst Surgeon, when relieved from duty at Camp Poplar River, M T, by Asst Surgeon Macauley, to report to commanding officer Ft Snelling, Minn, for duty (S O 105, Dept Dak, Sept 21, 1885)

First Lieut P G Wales, Asst Surgeon, relieved from temporary duty at Boise Bks, and ordered for duty at Ft Cœur d'Alene, Idaho S O 160, Dept Col, Sept 21, 1885)

First Lieut C B Ewing Asst Surgeon, ordered from duty at Ft Stanton, N M, and ordered for duty at Ft Leavenworth, Kan (S O 147, Dept Mo, Sept 25, 1885)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING OCTOBER 3 1885

Surgeon William H Jones, to Navy Yard, League Island, Pa, Oct 15, as the relief of Medical Inspector M Bradley

Medical Inspector Michael Bradley, detached from Navy Yard, League Island, Pa, Oct 15, and placed on waiting orders

Asst Surgeon Thomas Owens, to Naval Station, New London, Conn, as the relief of Surgeon Wm A Corwin

Surgeon Wm A Corwin, detached from Naval Station, New London, Conn, and ordered to the U S Str "Adams," Oct 31

Surgeon A C Magruder, ordered to the U S Str "Yantic," without delay, as the relief of Surgeon H L Law

Surgeon H L Law, detached from the U S Str "Yantic," and wait orders

Surgeon W J Simon, detached from the Naval Academy, Oct 1, and wait orders

Surgeon M C Drennan, detached from the Naval Academy, Oct 1, and wait orders

P A Surgeon Arthur G Cabell, to the U S Str "Adams, Oct 31

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE THREE WEEKS ENDED OCTOBER 3 1885

Austin H W, Surgeon, to proceed to Burlington, Vermont, on special duty Sept 23, 1885

Bailhache, P H, Surgeon, detailed as chairman of Board for the physical examination of officers of the Revenue Marine Service Sept 28, 1885

Vansant, John, Surgeon, order to New Orleans, La, revoked, to proceed to St Louis, Mo, Oct 2, 1885

Purviance, George, Surgeon, to proceed to Louisville, Ky, as inspector Oct 1, 1885

Gossaway J M, Surgeon, detailed as chairman of Board for the physical examination of officers of the Revenue Marine Service Oct 3, 1885

Godfrey, John, Surgeon, order of Sept 16 amended, to proceed without delay to Louisville, Ky Sept 28, 1885

Goldsborough, C B, Passed Asst Surgeon, order of Sept 16 amended, when relieved, to proceed to Chicago, Ill Oct 1, 1885

Irwin, Fairfax, Passed Asst Surgeon, detailed as recorder of Board for the physical examination of officers of the Revenue Marine Service Sept 28, 1885 To examine physically, and instruct crews of the Life Saving Service, Third District, in the method of restoring the apparently drowned Oct 3 1885

Banks, C L, Passed Asst Surgeon, detailed as recorder of Board for the physical examination of officers of the Revenue Marine Service Oct 3, 1885

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol V CHICAGO, OCTOBER 17, 1885 No 16

ORIGINAL LECTURES.

METHODS OF RESORPTION AND DISPOSAL OF FOREIGN BODIES IN THE LIVING SYSTEM[1]

BY N S DAVIS, JR, A M, M D,
LECTURER ON PATHOLOGY IN THE CHICAGO MEDICAL COLLEGE

Materials to be reabsorbed are chiefly the products of inflammation, such as exudates and necrosed tissue These constitute foreign bodies, or are unnatural in the place in which they are found They are therefore disposed of as are all foreign bodies, by an attempt on the part of the system to rid itself of their presence

Substances capable of resorption differ in their nature, and may be grouped in three categories first, liquids, second, soluble solids, and third, insoluble solids By soluble solids I mean those that can be dissolved in the normal juices of the tissues, the lymph or blood

Liquids are readily removed, unless they exist in overwhelming amounts, by the lymphatics The liquid mingles with and practically becomes part of the lymph, and therefore is disposed of with it The foreign liquid becomes more and more diluted by admixture with fresh lymph the further it passes from its original seat, until it becomes evenly distributed as a part of the whole blood and interstitial liquid of the body If an irritant, it loses its effect in proportion as it is diluted This dilution too takes place more rapidly when the foreign liquid is irritant, as inflammation is excited, and with it a more or less copious serous exudate Thus the irritant effects are confined and weakened, so that the noxious material may be eliminated The irritant may, however, exist in such quantities that the system is unable to remove it

Exudates which are to be reabsorbed are not thus irritating, but are capable of being removed unless they are so great, as they are in some dropsies, that they mechanically prevent or obstruct the lymphatic circulation The latter is dependent upon the action of the voluntary muscles, which by their contraction, as it were, squeeze the lymph out of and through them The muscles, when surrounded by an excess of fluid, are able to act very imperfectly, if at all Another factor that maintains the lymphatic circulation is the aspirating property of the thoracic cavity upon the great vessels within it But in œdema, when exudates exist in excess in the tissues, the respiratory acts are almost always impeded and imperfect A third factor which contributes to render resorption impossible under these circumstances is the condition of the blood-vascular system, which is usually such that it rather tends to increase the exudate instead of contributing to maintain lymphatic circulation

Foreign bodies which are soluble in the interstitial fluids are rapidly surrounded and bathed by an unusual quantity of them It seems to be a law of the animal economy to attempt at once the removal of all unnatural bodies, or at least a disposal of them so that they will not irritate the surrounding parts The first step in the disposal of them is uniformly the production of a copious serous exudate This enables a soluble body to be dissolved and removed in liquid form, through the lymph channels Bodies which are thus soluble are to a greater or less extent irritating They are always sufficiently so to excite a copious exudation of serum from the blood, and may be sufficiently so to cause violent inflammation

Of the bodies that are insoluble in the interstitial fluids we recognize two kinds those that are perfectly insoluble, and those that are capable of being liquefied in the living tissues They are also more or less irritating Consequently they too excite changes which tend to their removal or to render them inert In order to comprehend the methods by which they are disposed of, let us examine two or three illustrative cases If a solid, insoluble, smooth and compact body like a ball of glass be inserted into the tissues, an inflammation is lighted up around it Exudation of both serum and leucocytes takes place from the neighboring vessels As the serum is unable to dissolve the glass, it is gradually reabsorbed The leucocytes, however, attach themselves to the surface and form a complete shield or covering By their own multiplication and by additions from the blood, a more or less thick layer of these cells surrounds the foreign body and separates it from the surrounding tissue Under these circumstances they develop first into granulation tissue, and subsequently into cicatricial or fibrous tissue, which ultimately forms a complete envelope about the ball, and thus renders inert the irritating power of the foreign body The abnormal substance is now *encapsuled* This process constitutes the first step by which insoluble substances are disposed of

If the foreign body be a granular mass, as, for example, small pieces of charcoal, a lump of pigment granules, or numerous fine pieces of stone, the method is very different The first steps in the process are the same, but the subsequent ones differ much First, as before, a serous exudate is provoked, which contains many or few leucocytes These latter, as in the former case, at once attack the granular mass Instead, however, of developing on its surface into granulations and ultimately fibrous tissue, they seize upon each granule, and by their amœboid movements surround and inclose the granules within the protoplasm of their own substance When this is done, the leucocytes are slowly washed away from the foreign body into the lymph stream and are carried along in its course The granules are thus one by one transported away, and more or less scattered through the body, and perhaps ultimately eliminated from it That the leucocytes have this power is well known, for not infrequently they can be seen in microscopic specimens to contain fragments of pigment Thus tattoo marks are sometimes partially destroyed, the pigment being removed from its original seat and deposited in a neighboring lymphatic gland Thus, also, the pigment particles which we inhale are carried to and deposited in the bronchial lymphatic glands Experimentally, too, it has been shown that these corpuscles have the power of taking up and transporting granular matter If to white corpuscles that are under examination on the warm-stage of a microscope a little very finely precipitated carmine is added, the most active corpuscles will at once be seen to first adhere to the particle of coloring matter, and then by degrees to change its position so that the pigment is within the corpuscle, in other words, the living protoplasm apparently flows around the carmine particle The corpuscle has also the power to disengorge its load and to leave it On this account, often, particles of foreign substances may be transported in the living body through many stages by different corpuscles

---

[1] Abstract of a Lecture delivered before the class in Pathology at the Chicago Medical College in November, 1884

When the leucocytes gather around such a foreign mass, they are not content to attack the exterior only, but press into every crevice and penetrate the interior through its interstices Thus these masses often become honeycombed If the material be of considerable size, and in portions quite compact, after partial removal has occurred by this process, a slow encapsuling may occur which will cut short or interfere with further attempts at removal

A third variety of substances insoluble in the interstitial liquids comprises such as are liquefied under the influence of the living body As a type of these we may take coagulated albumen, which is insoluble in blood or lymph How this liquefaction is accomplished is not absolutely known Many writers leave the question "how?" unanswered, and even unasked, contenting themselves with the statement of the fact of liquefaction Others mention the fact without special discussion, but in such connection that we might think that they believed the removal of the foreign body occurred not by liquefaction, but by the transportation of its particles little by little by the leucocytes, as has just been described for insoluble granular matter By others it has been suggested that liquefaction was due to the presence of some unorganized ferment in the tissues or interstitial liquid We must admit the possibility of such a ferment being present, though none has yet been isolated or experimentally proved Unorganized ferments usually act readily when separated from the living body But liquefaction of albumen will not take place in the tissues if they are not alive, nor in lymph nor blood when these are removed from the living body The element of life in the surrounding substances we are led to believe plays an important part in the process of liquefaction

If we reject the theory of the presence of an unorganized ferment, we must naturally look for another explanation We have seen that the white corpuscle plays an active part in the resorption of granular bodies, and I would ask, May it not also be the active agent of liquefaction, acting, however, in a very different manner from a transporting or carrying agent? In order that unicellular animals may support life, they have the power of assimilating food with which they come in contact For example, the amœba swallows, or rather encloses, particles of food in its protoplasm, when the little mass apparently melts away, becoming a part of the homogeneous substance of the animal The lowest plants act in almost the same way They, however, absorb the substances on which or within which they are planted without first swallowing them as solid particles Many bacteria are known to cause liquefaction of their solid foods merely by their contact with them For example, when planted upon culture gelatine, as the bacteria grow, they become surrounded by liquid, which is contained in hollows in the gelatine made by its own liquefaction

We have already seen that the leucocyte or white corpuscle possesses the property of taking up and transporting granular matter as may an amœba In other respects, also, it bears a close resemblance to these monads It has the power of locomotion, of projecting prolongations of its protoplasm, of retracting them, of throwing out others from another side, in other words, at times will show as well developed pseudopodia as the amœba

Is it not, then, probable that it has other homologous properties? It must be nourished, as well as all other portions of the living body We ordinarily suppose that this nourishment exists ready for assimilation in the blood and lymph However, as in other respects it bears so strong a resemblance to unicellular animals, it seems at least quite probable that it may have the power of liquefying or causing solid particles to slowly melt away as they do when they are appropriate food for and when they are being taken up by the amœba Nor is it necessary to suppose that solid materials which can thus be liquefied must first be taken up as granules within the mass of the leucocytes, for the latter may be able to act as do some of the bacteria, simply by contact with the liquefiable substance The facts that life is necessary to the process of liquefaction and that the leucocytes exist during the process about the liquefying body in undue numbers would make it possible to suppose that these leucocytes were the vital agent which produced the dissolution of the insoluble mass Liquefaction would thus be due to the assimilative and metabolic changes of the leucocytes. It would be a process of digestion on the part of the leucocyte. The liquefied body having been utilized as food by the white blood cell, which would play the part of an organized ferment.

This explanation of liquefaction I have not yet seen given elsewhere, but arguing, as students of nature must constantly do, from analogy, it seems most plausible and most probable. If true, however, the word liquefaction may not be altogether appropriate, the process not being necessarily one by which substances are liquefied, but rather one by which they are assimilated. We may therefore say that certain insoluble foreign bodies are removed by assimilation. This process is of common occurrence in the animal body. By its help it is that dead tissues are separated from living, that sloughs are formed upon free surfaces, that animal ligatures disappear when imbedded in the tissues, and that solid inflammatory products are removed.

A line of demarcation around a sloughing surface is a line of inflammation. The latter process causes, by the necessary exudation, a separation of the cells from one another, and their death and final liquefaction. Thus a severance of continuity occurs between the living and dead tissue. In the case of ligatures, the ordinary process of absorption takes place. Enough irritation occurs to cause at least a slight exudation of serum and a more abundant migration of leucocytes around the ligature. Then follows liquefaction and disintegration. Deep seated inflammation often occurs, accompanied by destruction, necrosis of tissue, which finally disappears without discharging on a free surface. The necrosed cells are broken up, liquefied, and absorbed or assimilated.

Not unfrequently foreign bodies are observable which, though insoluble in the interstitial liquids, cannot be grouped under either of the three varieties just described. They may present in part the characters of each, and therefore we find them often honeycombed by the disintegrating, liquefying and transporting agency of lymph and cells, and also later on encapsuled. All the methods of resorption may have been active, and finally the mass made non-irritating by encapsulement.

These are, in brief and in general terms, the changes effected and methods employed by nature in removing and rendering inert foreign bodies.

Since the above lecture was given, I have found in the *Revue des Sciences Medicales*, for January, 1885, abstracts of two articles by Metschnikoff, which were originally published in *Rouskia Medicina*, in 1884, in which views similar to those stated above are advanced in regard to the power of white corpuscles to, by "intracellular digestion," cause certain substances to disappear. As arguments in favor of this view, Metschnikoff cites the changes observable in the tail of the tadpole while it is atrophying or being absorbed. From the beginning of the process a collection of amœboid cells is observable, which contain entire particles of nerve fibres and primitive muscle fibres. The cells gather about the caudal muscle, surround little by little the primitive muscle fibres, and finally devour them. Similar changes are observable also during the metamorphosis of echinoderms and other invertebrates. In these latter the mesodermic cells play the part that in vertebrates is taken by the white blood cells.

Metschnikoff also extends the theory, and because in certain septic diseases he finds bacteria in the white corpuscles, believes that the latter are the agents which nature has provided for the removal of these as well as other foreign and noxious substances from the body.

ORIGINAL ARTICLES

PRACTICAL REMARKS AND SUGGESTIONS IN REGARD TO DISEASES OF THE EAR, THROAT AND NOSE.[1]

BY JOSEPH A. WHITE, M.D.,

SENIOR SURGEON TO THE RICHMOND, VA., EYE, EAR AND THROAT INFIRMARY.

The frequency of aural, throat and nasal affections, the necessity of early attention to them to prevent lamentable consequences, and the prevalence of certain errors in regard to them, were the excuses for this paper. In reference to aural trouble, for example, there is not sufficient importance attached to their relation to general medicine, and when ear symptoms develop during the course of some constitutional trouble, such as struma, syphilis, gout, tuberculosis, the exanthemata and zymotic diseases, and during dentition, these symptoms are frequently ignored, as requiring no special treatment, and if the patient call the attention of the physician to them he is often told that with the restoration of the general health the symptoms will disappear. The reader doubted, in view of the frequency with which these cases come into the hands of the specialist, if this advice be warranted by clinical experience.

The dependence of the ear upon the throat, and the very frequent occurrence of acute or chronic ear trouble with impaired hearing resulting from nasal or throat disease, is now a recognized fact, but at the same time the error of supposing that the cure of the *cause* will remove the *effect* is too common. Such mistaken advice misleads the patient, who is actively treating the nose or throat trouble, into a sense of security which nearly always ends in disappointment. There is no class of cases which more requires early and active local treatment, or in which delay, from procrastination or improper advice, is so disastrous in results as in diseases of the ear, whether from constitutional or local causes, or propagated from the throat. This is particularly the case when children are the patients, it being so often said that they will *grow out* of the trouble.

He then referred more particularly to the disastrous consequences of neglecting middle ear catarrh, whether suppurative or not, in its earlier stages. In suppurative inflammation neglect may be fatal both to hearing and to life, from whatever cause it may result. Sometimes this trouble commences with great pain, or, again, the discharge from the ear may be the first intimation of the trouble *Pain* should be combatted by local leeching, warm applications (hot water, warm cloths, but no poultices), a twenty per cent solution of cocaine,[1] with sulphate of atropia locally, and anodynes internally In this exudative stage, the muriate of pilocarpine[2] and sulphide of calcium should be administered If, in spite of this treatment, pain persist, and examination of the membrana tympana shows it to be bulging, an incision should be made into its posterior inferior quadrant, so as to evacuate the contents of the tympanum with the air bag When the discharge has once begun, whether with or without acute symptoms, the ear should be kept clean with a carbolized or borated solution of bicarbonate of soda, and by the daily use of Politzer's air bag to keep the Eustachian tube free Should the pain still persist the cocaine solution, without any atropia (which would be dangerous after the perforation of the drum head), should be continued The drum may also be dusted with pulverized boracic acid once or twice daily Such treatment is within the reach of every physician, and if neglected the results will be unfortunate in the large majority of cases, as mastoid disease, meningitis, embolism, thrombosis, cerebral abscess, pyemia, etc , may result Where one case recovers without treatment a dozen lose their hearing by gradual destruction or distortion of the ear structures, and the younger the case the more lamentable the consequences In nearly every case of suppurative inflammation of the middle ear, the membrane limitans of the mastoid cells and mastoid antrum undergoes more or less pathological alteration Threatening mastoid complication can be frequently averted or aborted by leeching and by the administration of sulphide of calcium If there be pain or pressure, or redness over the process, a free incision to the bone should be made, and should pain still persist the bone should be opened

---

[1] Read before the Medical Society of Virginia, Sept. 17, 1885.

In scarlet fever, a most fruitful cause of suppurative ear disease, we sometimes see cases in which hearing is totally lost This is especially so in those cases in which the throat trouble is worst, sometimes with the formation of diphtheritic membrane—the so called scarlatinal diphtheria In some cases the destructive tendency of the inflammation involves the membranes of the labyrinthine windows, thus emptying the labyrinth of its fluid contents, and destroying the nerve filaments, resulting in absolute and permanent deafness In other cases the labyrinth seems to participate in the exudative tendency, and nerve-perception is temporarily obliterated, gradually returning as the exudation is absorbed

In the same relation of ear diseases to general medicine, the reader called attention to the influence of menstruation, both at puberty and at the menopause, upon such troubles At the climacteric period it is very common to find impaired hearing coming on, usually in the form of adhesive middle ear catarrh The reader has seen cases of otorrhœa coming on at puberty with each menstrual period, yield readily to treatment, and return with each menstrual period, with a bloody purulent discharge

In using the aural syringe for removal of impacted wax Dr White advocates only a gentle flow of the liquid He is much opposed to forcible injections, as by them the drum-head may be considerably congested or damaged For the removal of impacted wax he uses frequent applications of a warm solution of bicarbonate of soda in glycerine and water, until the wax becomes softened and partially dissolved, when it is easily removed by gently syringing Foreign bodies may be removed by a gentle flow of warm water as easily as by force In some cases it is necessary to use the ear probe, but this should only be attempted with good illumination with a head mirror

Dr White then referred to the prevalence of erroneous impressions regarding some throat and nose troubles, such as confounding follicular tonsillitis with diphtheria In *tonsillitis* we have fever, sometimes nausea, dysphagia, throat pain usually beginning on the third day, and exudation in patches on the surface of the swollen tonsil In *diphtheria*, with the same symptoms, the exudation is not confined to the tonsil, but extends over neighboring parts Guaiacum seems to be a specific for the follicular tonsillitis, and supports the view that tonsillitis is more common in rheumatic persons When recurrent attacks are common, or when the tonsil becomes so hypertrophied as to cause defective nasal breathing or impaired articulation, the tonsils should be removed Anything that interferes with free nasal breathing, and necessitates mouth breathing, should be removed Many cases of fever in childhood are due to an unlooked for and unknown tonsillitis There are also various reflex disturbances which are due to obstruction to nasal respiration, as reflex cough, sick headache, asthma, and hay fever Treatment of the nasal trouble will sometimes cure these affections, even the hay fever

CLIMATIC RELATIONS OF CANCER AND CONSUMPTION

BY EDMUND ANDREWS, M D , LL D ,

OF CHICAGO ILLINOIS

Some years ago, I showed by a comparison of the United States statistics of mortality for the censuses of 1860 and 1870, that cancer had a distinct climatic relation, being most abundant in the same regions as consumption [1] The law of prevalence for our country appears to be, that both diseases are most abundant on the sea coast, and diminish as we recede to the interior, and that at equal distances from the sea they are more abundant at the north than at the south

In preparing the Census Report of 1880, Surgeon J S Billings has given great attention to the tabulation of the statistics of mortality in such a form as to show the influence of a variety of conditions upon disease, and prominently among them the effects of

---

[1] In spite of assertions to the contrary Dr White has conclusively shown that cocaine anæsthetizes the *membrana tympani* as shown by the fact that he has performed paracentesis of the apparently healthy *drum head* after the application of cocaine without pain to the patient

[2] Except in certain cases of heart trouble in which pilocarpine is contra indicated

[1] Chicago Med Exam p 178 1872

climate In the Report now being issued, he has subdivided the States into parts, such as seashore regions, mountain regions, great river belts, regions of the northern lakes, etc , and combined these segments into twenty-one "grand groups," showing the mortality of different diseases in each group This arrangement gives a much superior opportunity to trace climatic effects than the former division by States Taking the twenty one "grand groups" in successive order, I have calculated for each the proportion of deaths from cancer and consumption to the total deaths from all causes, showing clearly the relative frequency of these diseases in each section, and placed the results in the following table

Table showing the proportions of deaths from cancer and from consumption to deaths from all causes in the year 1880

No of Grand Group	Names and Descriptions of Grand Groups	Proportion of Deaths from Consumption to Deaths from all Causes	Proportion of Deaths from Cancer to Deaths from all Causes
1	North Atlantic Region or New England Sea coast Belt	1 to 6	1 to 36
2	Middle Atlantic Coast Region or Sea coast Belt from New York to Virginia inclusive	1 7	1 " 51
3	South Atlantic Coast Region or Sea coast Belt from North Carolina to Georgia inclusive	1 11	1 111
4	Gulf Atlantic Coast Region or Sea coast Belt from Florida to Texas inclusive	1 8	1 57
5	North eastern Hills and Plateaus or Inland Hill Regions of New England and Eastern New York	1 " 5½	1 32
6	Central Appalachian Region or Allegheny Mountains from New York to Maryland inclusive	1 9	1 " 47
7	Region of the Great Northern Lakes	1 " 9	1 49
8	Interior Plateau or the Plateau between the Appalachians and the Atlantic Coast Belt extending from New York to N Carolina inclusive	1 7	1 " 47
9	South Central Apalachian Region or the Mountains from Virginia to Alabama inclusive	1 8	1 " 66
10	Ohio River Belt	1 7	1 " 58
11	South Interior Plateau or the Inland Level Regions of South Carolina Georgia Alabama and Tennessee	1 12	1 " 97
12	South Miss River Belt	1 11½	1 166
13	North Miss River Belt	1 9¼	1 52
14	South west Central Region or those parts of Missouri Arkansas Louisiana and Texas lying north of the Gulf Coast Region and west of the S Miss River Belt	1 15	1 147
15	Central Region of Plains and Prairies or that Belt of Ohio Indiana Kentucky and Tennessee lying next west of the Mountains	1 7	1 " 65
16	Prairie Region or parts of Missouri Iowa Illinois Kansas Nebraska Wisconsin Minnesota and Dakota	1 " 10	1 73
17	Missouri River Belt (as far as to upper border of Dakota)	1 10	1 100
18	Western Plains or level portions of Dakota Montana Wyoming Nebraska Kansas Colorado New Mexico and of N W Texas	1 14	1 265
19	Heavily Timbered Region of the North west or the Forest portions of Michigan Wisconsin and Minnesota	1 7½	1 " 42
20	Cordilleran Region or the Great Central Mountain Belt of the West extending from Canada to Mexico	1 13	1 " 112
21	Pacific Coast Region	1 7	1 42
		1 to 9 23	1 to 76 9

In preparing this table, I have disregarded the minor fractions Broad principles only can be deduced from it, because the government, in taking the census of mortality, cannot attain minute precision in all details Examining first the two columns of figures, we see at a glance that cancer and consumption, though presenting minor variations, have in the main the same topographical and climatic distribution, in short, that cancer abounds in the same climates as consumption In two former articles I showed this fact from the censuses of 1860 and of 1870 The law regulating this distribution may be expressed nearly as follows

1 Cancer and consumption abound most on the sea-coast belts

2 At the same distance from the sea, they are abundant at the north, and less so at the south

For instance, New England, which is far north and skirts the sea, has one death from consumption to about six deaths from all causes and of cancer about one to thirty six Going westward to the region around the great lakes, we find consumption one to nine and cancer one to forty nine Still further west the prairie region shows consumption one to ten and cancer one to seventy-three On the same latitude the great western mountains and plains show consumption about one to twelve and cancer one to about 150 Now if we descend to the sea coast of Oregon and Washington Territory, the ocean influences again prevail, and deaths from consumption rise to one in seven and one-half, and from cancer to one in sixty-six Everywhere the same result will be found It is not clear which of all the possible influences of the sea produces these diseases One can imagine it to be the prevalent dampness, the salt spray in the air, the modifications of temperature, the use of sea food, or the presence of specific bacilli bred by the ocean, or requiring sea air for their ready development The figures in the Census Report do not enable us to solve this chaos of problems

The effect of latitude is not as distinct as that of proximity to the sea, yet there is a general diminution of both diseases as we go southward We find as follows

	Consumption	Cancer
New England Coast	1 to 6	1 to 36
Middle Atlantic Coast	1 to 7	1 to 51
South Atlantic Coast	1 to 11	1 to 111
Florida	1 to 12	1 to 105

In the three successive censuses New Mexico has shown itself preeminent for its exemption from both cancer and consumption No portion of the United States approaches it in this respect In the census of 1880, out of 2,436 deaths from all causes, only forty-nine were from consumption and thirteen from cancer, giving the following ratio, viz

Consumption	1 to 50
Cancer	1 to 187

Surgeon Billings divides most of the Territory into the eastern or plain portion, and the western, or the mountain part, the latter being traversed by the valley of the Rio Grande, and the former by the Atchison, Topeka and Santa Fé Railway The eastern or plain part is, according to the figures, superior to the mountain part in exemption from these two diseases, but both are above any other State or Territory in immunity New Mexico combines the two conditions which in this country secure protection from the diseases under consideration, viz remoteness from the sea and southern latitude The elevation is from 4,000 to 8,000 feet above the sea The winters are mild and dry and the rainfall slight, being from ten to fifteen inches a year The little rain that falls comes mostly in summer showers On the whole, it would seem well proved that New Mexico is the proper residence for consumptive patients Colorado has also stood deservedly high in these respects, but the figures in the census have been made to appear less favorable than those of ten years ago, in consequence of the really large number of consumptives who have been taken thither in the advanced stages of the disease

The question is often asked, "Do cancer and consumption on the whole increase in the community?" The following figures convey the substance of what is known on the subject They are obtained by averaging the ratio of all the States and Territories for the only three censuses which have recorded any mortality statistics

Table showing the Proportion of Deaths from Cancer and Consumption to Deaths from all Causes in the whole United States in 1860, 1870 and 1880

	1860	1870	1880
Ratio of deaths from Cancer to deaths from all causes	1 to 142	1 to 101	1 to 77
Ratio of deaths from Consumption to deaths from all causes	1 to 11	1 to 9	1 to 9

Apparently cancer has nearly doubled since 1860 Consumption, on the other hand, increased largely to 1870, and since then has remained nearly stationary, showing a slight decrease in 1880 In the New England States consumption shows a very decided diminution This may be from improved modes of living and from the immigration into the towns of foreigners, not yet brought under the influence of the climate

Inferences about the increase or diminution of these diseases are subject to possible error, because the tables of mortality do not represent the whole decennial periods, but only the single years 1860, 1870, and 1880 It may be that there are yearly variations of irregular character, which would present a different aspect could we eliminate them by averaging the whole of each ten-year group together Still, the general tendency of the figures as they now stand is to show an increase of the ratio of these diseases

No 6 Sixteenth St, Chicago

CONSEQUENCES OF ACUTE AURAL TROUBLES IN CHILDREN WHEN NOT PROPERLY ATTENDED TO[1]

BY T E MURRELL, M D,

OF LITTLE ROCK ARK

In examining many persons one is struck with the varying degrees of hearing power in different individuals, and in different ears of the same individual So much so is this the case that it has been extremely puzzling to fix a standard of hearing power, even ough the character of the test be agreed on, which [illegible] a difficult problem But, to meet all pe- [illegible] will presume the various methods in [illegible] tried on each person under test, and a comparative estimate deducted therefrom In this manner there is found a very great difference even in persons of presumably normal condition—persons who have no catarrhal affection and no history of ear disease If one selects for his examination persons beyond middle life he will find few whose hearing reaches the highest standard Causes arising in the course of life from climate, mode of living, habits and vocation, lead to defective hearing, not to mention acute affections incident to exposure, general diseases, and accident

Omitting all causes arising after childhood, we will only consider acute affections in children as causative of dulness of hearing in after life

Many persons with impaired hearing who can give no history of their trouble, have likely suffered from some middle ear affection in infancy or early childhood, a period of life in which records of disease are readily lost In proof of which statement, a careful inspection of the drum-membranes of such persons will often reveal evidences of former trouble In childhood nearly all diseases are acute primarily, to which affections of special organs are not exceptions The two diseases of the ear most frequent in infancy and early childhood are acute catarrh and acute suppuration of the middle ear Not only the mother, but also the physician, is quite liable to overlook an ear-ache in an infant The cause of its plaint is unsuspected in the search for the more common pains and distresses of this time of life By reason of, or in spite of, expectant remedies, the sufferer assumes its usual playfulness in a few hours, or days, and all goes well until another such attack comes on at some indefinite future period These attacks may repeatedly recur—being often of a sub-acute type—before the cause is ascertained During one of the attacks a careful inspection of the fauces would reveal a redness with, perhaps, œdema, and of the drum-membrane, an injection along the handle of the malleus or a uniform redness When the attack has passed away no vestiges of it may remain, either in hearing power or appearance of the parts involved But should they be often repeated the mucous membrane of the pharynx and middle ear gradually assume abnormal conditions, the lymphatics become engorged, the tissues pervaded with formative elements, the arterioles enlarged and capillaries congested, and the functions of the parts altogether disturbed If the perturbating causes are now removed, there is a tendency to restoration to a healthy condition, but often a vulnerability remains, whereby the slightest exciting cause, as a cold in the head, is sufficient to renew the morbid processes It is fortunate that all acute and sub acute catarrhs of the middle ear in infancy and early childhood do not, from neglect, terminate in injury of a permanent character Enough do, however, to warrant particular stress on the importance of proper attention being given them, notwithstanding the popular idea of their unimportance The habit should be broken by appropriate treatment, general and local, so as to assure against any unfortunate results

Acute suppuration is the usual termination of an acute catarrh of the middle ear when of high degree and sudden onset There is the ear-ache, most intense, perhaps, fever and pharyngitis A few hours, or a day or two at most, brings relief by escape of the pent-up products of inflammation through the drum membrane, which yields to the pressure and absorptive action of the matter within the middle ear cavity The inflammation for a time is generally intense and the pain excruciating, but with rupture of the drum membrane comes rapid subsidence of the one and almost immediate cessation of the other Ordinarily the suppurative process comes to an end in a few days or weeks, according to the severity of the attack, the perforation in the drum membrane heals by a cicatricial formation, and hearing becomes usually pretty fair Suppose, however, nature has been allowed to take her course, that no treatment, or insufficient treatment, has been adopted, and what is the result? Careful test will show quite marked loss of hearing, which will not only be permanent, but a condition of the mucous membrane of the middle ear will be left which will tend to increase with age, whereby interference with conduction through the middle ear is more and more interfered with, leading to increased dulness of hearing in after life

---

[1] Medical Society of Arkansas April 22 1885

One attack of acute suppuration predisposes to another, so that chronic suppuration, with its disabling effects, follows, or cicatricial bands form in the middle ear cavity, with anchylosis of the ossicles, pressure on the labyrinth, and other abnormal conditions, resulting in marked diminution of hearing An individual in whom the writer has more than ordinary interest, suffers extreme deafness in one ear from anchylosis and cicatricial formations from repeated attacks of acute suppuration in early childhood, and disagreeable impairment of the other from an unhealthy condition of the mucous membrane implanted at the same time A few words now as to how to avoid such consequences It is presumable, with the literature within the reach of every practitioner of medicine, that the general principles of treatment of these troubles are understood, and I shall therefore put stress only where importance demands it In acute and sub acute aural catarrh, the child's food, clothing and general care should receive special attention Colds are the starting point, and they should be avoided by the observance of those laws of health familiar to every intelligent physician The pharyngeal and naso pharyngeal regions call for suitable remedies The best immediate treatment for the ear is a douche of warm water run in a continual stream into the outer ear, or syringed, or poured, in want of the ear douche Cocaine, atropia or morphia may be tried in warm solution, but personal experience leads me to rely more on the free use of pure warm water, both as an anodyne and as a curative agent, than any other topical remedy After the douche or syringe is used a pledget of cotton should be worn in the outer meatus, both to protect from cold and to retain the heat and moisture There is usually an accumulation of mucus in the middle ear cavity, together with obstruction of the Eustachian tube by œdema and collections of mucus In order to open the tube and restore the balance of pressure between the middle ear space and the outer atmosphere—a rarefaction of the air in the middle ear having resulted from absorption—it is necessary to resort to inflation through the Eustachian tube This is best done by Politzer's or Gruber's method, the latter being the method in infants who unconsciously, in crying, emit the sounds necessary to closing the space between the middle and upper pharynx This should be done daily until the acuteness of the attack has subsided, and then less often until there is complete restoration of equilibrium between the throat and middle ear cavity, and proper patency of the Eustachian tube insured. Failure in this may be the cause of permanent injury to hearing by long continued rarefaction in the middle ear and pressure on the drum-membrane and chain of bones from without

In dealing with acute suppuration, treatment should begin at the commencement of the attack, and suppuration averted, if possible In the stage of acute catarrh, a hot foot-bath, diaphoretics, uniform temperature, and warm douching of the outer ear will afford wonderful relief, and often terminate the attack short of suppuration But if suppuration is imminent, and the drum-membrane bulging, paracentesis should be resorted to, rather than allow spontaneous rupture with a ragged opening and much cicatricial contraction in healing A paracentesis at this stage generally gives exit to serum and mucus tinged with blood, from the incision in the drum-membrane, followed by almost immediate relief from pain After the paracentesis a Politzer should be given to blow out the fluids accumulated in the middle ear All syringing after this should be done with aseptic fluids By careful attention to details, suppuration may not follow, even when this state of affairs has been reached, and the paracentesis is an important factor, when timely done, in averting such result If suppuration does not follow, the further treatment should be the same as already suggested for acute catarrh If suppuration follows, it should be treated by cleanliness antiseptics and astringents, until it has ceased, and the perforation in the drum membrane healed At this stage the patient is commonly discharged and all treatment suspended, and it is just here that seeds are sown for future trouble The mucous membrane of the middle ear is still in a swollen and infiltrated condition, the drum membrane has a contracting cicatrix forming, altering its curvature, and by bands of cicatricial formations within, being drawn inwards and causing pressure on the labyrinth through the foot of the stapes, the Eustachian tube remains for some time impervious to natural methods of opening it, and rarefaction of the air in the middle ear thereby ensues, thus augmenting the labyrinthine pressure and disturbing proper circulation, in that the arterial walls in the mucous membrane do not meet with proper resistance Slowly these abnormal processes recede towards a healthy condition, but quite commonly stop short of it, and in the course of time, defective hearing, with constant tinnitus aurium but too plainly point the result of insufficient treatment

When the suppurative process is at an end, and the perforation in the drum membrane has been filled is from 4,000 to 8,000 feet above the sea The winters are mild and dry and the rainfall slight, being from ten to fifteen inches a year The little rain that falls comes mostly in summer showers On the whole, it would seem well proved that New Mexico is the proper residence for consumptive patients Colorado has also stood deservedly high in these respects, but the figures in the census have been made to appear less favorable than those of ten years ago, in consequence of the really large number of consumptives who have been taken thither in the advanced stages of the disease

The question is often asked, "Do cancer and consumption on the whole increase in the community?" The following figures convey the substance of what is known on the subject They are obtained by averaging the ratio of all the States and Territories for the only three censuses which have recorded any mortality statistics

Table showing the Proportion of Deaths from Cancer and Consumption to Deaths from all Causes in the whole United States in 1860, 1870 and 1880

	1860	1870	1880
Ratio of deaths from Cancer to deaths from all causes	1 to 142	1 to 101	1 to 77
Ratio of deaths from Consumption to deaths from all causes	1 to 11	1 to 9	1 to 9

Apparently cancer has nearly doubled since 1860 Consumption, on the other hand, increased largely to 1870, and since then has remained nearly stationary, showing a slight decrease in 1880 In the New England States consumption shows a very decided diminution This may be from improved modes of living and from the immigration into the towns of foreigners, not yet brought under the influence of the climate

Inferences about the increase or diminution of these diseases are subject to possible error, because the tables of mortality do not represent the whole decennial periods, but only the single years 1860, 1870, and 1880 It may be that there are yearly variations of irregular character, which would present a different aspect could we eliminate them by averaging the whole of each ten year group together Still, the general tendency of the figures as they now stand is to show an increase of the ratio of these diseases

No 6 Sixteenth St , Chicago

CONSEQUENCES OF ACUTE AURAL TROUBLES IN CHILDREN WHEN NOT PROPERLY ATTENDED TO[1]

BY T E MURRELL, M D ,

OF LITTLE ROCK ARK

In examining many persons one is struck with the varying degrees of hearing power in different individuals, and in different ears of the same individual So much so is this the case that it has been extremely puzzling to fix a standard of hearing power, even though the character of the test be agreed on, which is in itself a difficult problem But, to meet all peculiarities, we will presume the various methods in common use are tried on each person under test, and a comparative estimate deducted therefrom In this manner there is found a very great difference even in persons of presumably normal condition—persons who have no catarrhal affection and no history of ear disease If one selects for his examination persons beyond middle life he will find few whose hearing reaches the highest standard Causes arising in the course of life from climate, mode of living, habits and vocation, lead to defective hearing, not to mention acute affections incident to exposure, general diseases, and accident

Omitting all causes arising after childhood, we will only consider acute affections in children as causative of dulness of hearing in after life

Many persons with impaired hearing who can give no history of their trouble, have likely suffered from some middle ear affection in infancy or early childhood, a period of life in which records of disease are readily lost In proof of which statement, a careful inspection of the drum membranes of such persons will often reveal evidences of former trouble In childhood nearly all diseases are acute primarily, to which affections of special organs are not exceptions The two diseases of the ear most frequent in infancy and early childhood are acute catarrh and acute suppuration of the middle ear Not only the mother, but also the physician, is quite liable to overlook an ear ache in an infant The cause of its plaint is unsuspected in the search for the more common pains and distresses of this time of life By reason of, or in spite of, expectant remedies, the sufferer assumes its usual playfulness in a few hours, or days, and all goes well until another such attack comes on at some indefinite future period These attacks may repeatedly recur—being often of a sub-acute type—before the cause is ascertained During one of the attacks a careful inspection of the fauces would reveal a redness with, perhaps, œdema, and of the drum membrane, an injection along the handle of the malleus or a uniform redness When the attack has passed away no vestiges of it may remain, either in hearing power or appearance of the parts involved But should they be often repeated the mucous membrane of the pharynx and middle ear gradually assume abnormal conditions, the lymphatics become engorged, the tissues pervaded with formative elements, the arterioles enlarged and capillaries congested, and the functions of the parts altogether disturbed If the perturbating causes are now removed, there is a tendency to restoration to a healthy condition, but often a vulnerability remains, whereby the slightest exciting cause, as a cold in the head, is sufficient to renew the morbid processes It is fortunate that all acute and sub acute catarrhs of the middle ear in infancy and early childhood do not, from neglect, terminate in injury of a permanent character Enough do, however, to warrant particular stress on the importance of proper attention being given them, notwithstanding the popular idea of their unimportance The habit should be broken by appropriate treatment, general and local, so as to assure against any unfortunate results

Acute suppuration is the usual termination of an acute catarrh of the middle ear when of high degree and sudden onset. There is the ear-ache, most intense, perhaps, fever and pharyngitis. A few hours, or a day or two at most, brings relief by escape of the pent-up products of inflammation through the drum membrane, which yields to the pressure and absorptive action of the matter within the middle ear cavity. The inflammation for a time is generally intense and the pain excruciating, but with rupture of the drum membrane comes rapid subsidence of the one and almost immediate cessation of the other. Ordinarily the suppurative process comes to an end in a few days or weeks, according to the severity of the attack, the perforation in the drum membrane heals by a cicatricial formation, and hearing becomes usually pretty fair. Suppose, however, nature has been allowed to take her course, that no treatment, or insufficient treatment, has been adopted, and what is the result? Careful test will show quite marked loss of hearing, which will not only be permanent, but a condition of the mucous membrane of the middle ear will be left which will tend to increase with age, whereby interference with conduction through the middle ear is more and more interfered with, leading to increased dulness of hearing in after life.

---

[1] Read before the State Medical Society of Arkansas, April 22 1885

One attack of acute suppuration predisposes to another, so that chronic suppuration, with its disabling effects, follows, or cicatricial bands form in the middle ear cavity, with anchylosis of the ossicles, pressure on the labyrinth, and other abnormal conditions, resulting in marked diminution of hearing. An individual in whom the writer has more than ordinary interest, suffers extreme deafness in one ear from anchylosis and cicatricial formations from repeated attacks of acute suppuration in early childhood, and disagreeable impairment of the other from an unhealthy condition of the mucous membrane implanted at the same time. A few words now as to how to avoid such consequences. It is presumable, with the literature within the reach of every practitioner of medicine, that the general principles of treatment of these troubles are understood, and I shall therefore put stress only where importance demands it. In acute and sub-acute aural catarrh, the child's food, clothing and general care should receive special attention. Colds are the starting point, and they should be avoided by the observance of those laws of health familiar to every intelligent physician. The pharyngeal and naso-pharyngeal regions call for suitable remedies. The best immediate treatment for the ear is a douche of warm water run in a continual stream into the outer ear, or syringed, or poured, in want of the ear douche. Cocaine, atropia or morphia may be tried in warm solution, but personal experience leads me to rely more on the free use of pure warm water, both as an anodyne and as a curative agent, than any other topical remedy. After the douche or syringe is used a pledget of cotton should be worn in the outer meatus, both to protect from cold and to retain the heat and moisture. There is usually an accumulation of mucus in the middle ear cavity, together with obstruction of the Eustachian tube by œdema and collections of mucus. In order to open the tube and restore the balance of pressure between the middle ear space and the outer atmosphere—a rarefaction of the air in the middle ear having resulted from absorption—it is necessary to resort to inflation through the Eustachian tube. This is best done by Politzer's or Gruber's method, the latter being the method in infants who unconsciously, in crying, emit the sounds necessary to closing the space between the middle and upper pharynx. This should be done daily until the acuteness of the attack has subsided, and then less often until there is complete restoration of equilibrium between the throat and middle ear cavity, and proper patency of the Eustachian tube insured. Failure in this may be the cause of permanent injury to hearing by long continued rarefaction in the middle ear and pressure on the drum membrane and chain of bones from without.

In dealing with acute suppuration, treatment should begin at the commencement of the attack, and suppuration averted, if possible. In the stage of acute catarrh, a hot foot-bath, diaphoretics, uniform temperature, and warm douching of the outer ear will afford wonderful relief, and often terminate the attack short of suppuration. But if suppuration is imminent, and the drum-membrane bulging, paracentesis should be resorted to, rather than allow spontaneous rupture with a ragged opening and much cicatricial contraction in healing. A paracentesis at this stage generally gives exit to serum and mucus tinged with blood, from the incision in the drum membrane, followed by almost immediate relief from pain. After the paracentesis a Politzer should be given to blow out the fluids accumulated in the middle ear. All syringing after this should be done with aseptic fluids. By careful attention to details, suppuration may not follow, even when this state of affairs has been reached, and the paracentesis is an important factor, when timely done, in averting such result. If suppuration does not follow, the further treatment should be the same as already suggested for acute catarrh. If suppuration follows, it should be treated by cleanliness antiseptics and astringents, until it has ceased, and the perforation in the drum membrane healed. At this stage the patient is commonly discharged and all treatment suspended, and it is just here that seeds are sown for future trouble. The mucous membrane of the middle ear is still in a swollen and infiltrated condition, the drum membrane has a contracting cicatrix forming, altering its curvature, and by bands of cicatricial formations within, being drawn inwards and causing pressure on the labyrinth through the foot of the stapes, the Eustachian tube remains for some time impervious to natural methods of opening it, and rarefaction of the air in the middle ear thereby ensues, thus augmenting the labyrinthine pressure and disturbing proper circulation, in that the arterial walls in the mucous membrane do not meet with proper resistance. Slowly these abnormal processes recede towards a healthy condition, but quite commonly stop short of it, and in the course of time, defective hearing, with constant tinnitus aurium but too plainly point the result of insufficient treatment.

When the suppurative process is at an end, and the perforation in the drum membrane has been filled by cicatricial tissue, it is imperative, in so far as the integrity of hearing for the future is concerned, that methodical treatment should be given The drum-membrane should be exercised, together with the chain of bones, to prevent anchylosis and loss of motion, the Eustachian tube should be daily opened so as to restore a proper balance between the air in the middle ear and the outer atmosphere in order to avoid rarefaction and congestion of the mucous membrane, and the naso pharyngeal region should be toned up by appropriate remedies

To effect the first and second, the best means at our command is the air-bag, and the preferable method of using it is according to Politzer A Politzer should be given daily until hearing is restored to normal or nearly normal (a certain amount of impaired hearing nearly always remains after a severe supperative otitis media), which should be determined by carefully repeated tests, if the child is old enough for such tests, or so long as will insure all the restoration possible in case it is not By the observance of these rules no very great impairment of hearing ought ever to follow an ordinary case of suppurative otitis media, either immediately or remotely The importance of this finishing treatment in these cases should be more generally recognized, and is as applicable in older persons as in children One of the consequences of acute suppuration of the middle ear in children, viz , chronic suppuration, is only mentioned to remind of the importance of proper attention to the acute affection The exanthemata in children excite the most violent and destructive suppurative processes in the middle ear, which show a special tendency to become chronic, but by appropriate and persevering treatment resolution with very fair hearing is almost invariable

THE TREATMENT OF MALARIAL AILMENTS FROM THE STANDPOINT OF THE GERM THEORY[1]

J S SHIBLEY, M D,

OF PARIS ARK

It would doubtless be premature, at this time, to accept the germ theory of malaria as a demonstration, but it may be received as a "good working hypothesis" and a trusty guide to the treatment, which to my mind it greatly simplifies

The treatment of malarial diseases, is so old a subject, that it is after some hesitation that I have concluded to obtrude it on your attention Yet, when we remember that hundreds of deaths occur, every year, in our State, from this cause, every one of which ought to be prevented, we may well give to it our earnest attention Not until it is so well and so generally understood, that every case treated shall be cured, will it be out of order to discuss it

For the present, let us assume that the malarial poison consists of living organisms which, having gained access to the circulation are carried with the blood current to every organ and tissue That these organisms have the power under favorable conditions, of multiplying in the system, reproducing generation after generation indefinitely, and deriving the material for their production and growth from the living tissues, especially the blood and nerve tissue This process of reproduction and growth of the morbific agent, excites in some way unknown to us, a rise in the temperature of the patient, with all its accompanying phenomena—a fever, which is natures reaction against the morbid process, and by which it is at length interrupted more or less completely, producing an intermission or a remission But the poison is not all destroyed, some of it remains in the system, and at the appointed time will again give rise to the same sequence of events Such is the course in ordinary intermittents and remittents But should the system from some cause, fail to react by fever against the germs, they multiply unchecked to the speedy destruction of the patient, as we see in cases of malarial collapse, mis-called congestive chills

From this view of the nature of malarial poisoning, we can readily see why the eliminative treatment, whether by vomiting, purging or sweating, is so little satisfactory, since there is no evidence that the poison is eliminated by either of these methods The derangements of the digestive and biliary organs are the effects of the morbid process, and not its cause, as formerly supposed They are very closely allied to, if indeed they be not a part of, the nervous phenomena, and they will vanish rapidly on the removal of the cause

The curative treatment is antidotal, and its proper application consists in the selection of such germicides as will kill the bacteria, and in using them in such manner as to be both effective and harmless Fortunately, we have in the alkaloids of the cinchona bark the efficient germicide, but we cannot say that it is always harmless Indeed its use under the varying conditions of malarial ailments, required constant care and no little caution to cure the disease without injury to the patient

To summarize the treatment of malarial fever 1st, It should be instituted with the least possible loss of time The longer the germs are permitted to multiply and grow, the greater will be the damage inflicted on the system Delay is dangerous, for even mild seeming cases may become pernicious 2d, It is usually better to allay the nervous symptoms before resorting to the antidote A full dose of opium in some form, with one of the bromides or with hydrobromic acid, is the best preparatory treatment Besides relieving pain, vomiting, etc , it renders the system more tolerant of the action of the germicide 3d, The cinchona salt should be given as soon as the opiate takes effect, and in sufficient, but not excessive doses Eight or ten grains of quinine for a first dose, followed by five grains every two or three hours till the fever yields, the influence of the opiate and bromide being sufficiently maintained to prevent distress of any kind, will usually effect a cure speedily, safely and pleasantly Excessive doses of quinine, such as thirty or forty grains, are unnecessary, unpleasant and unsafe 4th, After the cessation of the fever, the system should be fortified against the growth of any germs that may remain, by the continued administration of germicides and hæmatinics The best are cinchona arsenic and iron, and their use should be persisted in till the cure is complete

---

[1] Read before the State Medical Society of Arkansas April 22d 1885

In pernicious fever, the same principles guide us in the treatment The leading indication is to destroy the morbific germs as quickly as can be done with safely to the patient

In the comatose variety, the coma is not the index of congestion of the brain, but of the injury done to the nerve centers by the malarial parasites It will yield readily to the treatment that removes its cause, *i e* to cinchonization As the patient gets under the influence of quinine he will wake up as from a sleep

In the convulsive variety, the convulsions are but another manifestation of the action of the poison on the nervous system But in this case it will not be safe to resort to the antidote till the irritation of the nervous system has been allayed Quinine and all its congeners are nervous irritants, and may add to the danger We must first place the shattered brain and nerves in splints, so as to speak For this purpose, morphia, given subcutaneously, is prompt, efficient, and safe Then bring the system quickly and decidedly, though not excessively, under the influence of quinine, and you cure your patient

The algid variety is much the most serious and dangerous form Here the system does not react against the poison The great danger lies in the excessive depression of the circulation This would seem to be secondary to irritation of the nerve centres by the poison, and brought about by reflex action, being analogous to the condition of shock in surgical injuries The problem is to maintain the circulation till the career of the destroying bacteria can be arrested To fulfil this indication, morphia and atropia, by cutting off the reflex irritation from the heart and digitalis, as a cardiac stimulant, are exceedingly valuable One fourth grain morphia with one sixtieth grain atropia may be given by subcutaneous injection and repeated every half hour until improvement in the pulse is manifest, or until the narcotic effects of the morphia begin to appear Ten drops of the fluid extract, or half a dram of the tincture of digitalis may be given in the same way and at the same interval, till the stimulant effect of digitalis is obtained Of course remedies so powerful, are to be used with prudence, but it is necessary to use them so as to be promptly effective, ere the opportunity for treatment be forever past At the same time we should give by the mouth moderate doses of quinine in solution, say five grains every two hours I do not now make use of tablespoonful doses as I once did They are too depressing and I fear may add to the peril of the patient

This treatment by morphia, atropia and digitalis has been followed by Dr T D Nichols, of Paris, and myself, for several years, with a very gratifying degree of success, having saved several cases such as uniformly died under the treatment formerly pursued by us, which consisted in the use of friction, heat, and rubefacients externally, and diffusible stimulants and heroic doses of quinine, internally Latterly we have discarded all disquieting measures, as tending still further to depress the vital force, which we endeavor to husband by rest and comfort, inflicting no further pain than what is caused by the hypodermic injections

In severe cases of malarial collapse medication of whatever sort by the mouth alone, is apt to prove inefficient, for if the medicine be not rejected the stomach has little power to dissolve or absorb it The essential point is to bring about reaction, to re-establish the functions of the vascular system, so as to allow the great antidote to be absorbed and brought into contact with the poison in the circulation

In pernicious fever in all its forms we must divest our minds of the idea of congestion, as the essential pathological condition Whatever degree of congestion may be present is only symptomatic of the action of the malarial poison on, or through, the vaso-motor system of nerves, and it will disappear on the removal of its cause

INJECTIONS OF ETHER IN SCIATICA[1]

BY Z ORTO, M D,

OF PINE BLUFF, ARK

I desire to call attention briefly, to a case of sciatica, successfully treated by hypodermic injections of sulphuric ether

On Oct 29, 1884, I was called to see Mrs C, whom I found in bed, suffering greatly with pain in her right leg and hip—unattended by redness or swelling Mrs C is 39 years old, of a nervous temperament, has a good family history, and has always had good health until the birth of her last child, which occurred on Feb 14, 1883 The patient states that three days after the birth of this child fever came on, and continued for about six weeks, during which time she was unconscious, and that when the fever ceased and conciousness returned, she was unable to move her right leg without excruciating pain There were spasmodic contractions of the limb, which caused great suffering She states she remained in about the same condition, except that there was a gradual wearing away of the pain, for six months, at the end of which time, she was able, by the aid of crutches, to move around the house, but at no time was she free from pain—and two weeks prior to my first visit she was again seized with the intolerable pain in her right hip and leg that had previously caused so much trouble She at once went to bed, and had been compelled to keep under the influence of opium

On examination, I found tenderness all along the course of the sciatic nerve, and, as before stated, without redness or swelling of the limb All movements of the limb had to be performed by the aid of the patient's hand applied to the thigh, and with the left foot under the right I at once diagnosticated sciatica, and having read of some cases successfully treated by hypodermic injections of sulphuric ether, by Dr C G Comegys, of Cincinnati, published in the *Cincinnati Lancet and Clinic*, for July, 1878, I determined to give this remedy and method a trial

---

[1] Read before the State Medical Society of Arkansas April 23d, 1885

On the morning of November 30, my patient received the first injection of twenty drops, the syringe being inserted behind the trochanter major, the point recommended by Dr Comegys The injections were given in the ordinary superficial way Seven injections were used in all, at intervals of twelve hours, using in the last six thirty drops each The injections were followed by violent pain of a burning character, which, however, soon passed off The patient declared she could taste the ether distinctly by the time the syringe was withdrawn The acute neuralgic pain was relieved by the first injection, and never returned as severely as before Improvement was noted from the beginning, the patient sleeping soundly without any other anodyne The progress of the case was favorable, though rather slower than those of Dr Comegys, though I think this may be accounted for by the former condition of the patient In less than ten days the patient was able to be out of bed, and has since been attending to her domestic affairs, enjoying perfect health, save a little stiffness in her right leg

So far as I am aware, Dr Comegys was the first to call the attention of the profession to the value of this remedy in sciatica From my experience with ether, in this one case, I am prepared to agree with him when he says "in this I believe we have a safe and efficient remedy for this troublesome and painful disease" He believes it to be equally efficacious in circumflex neuralgia as well as *tic douloureux* Heretofore ether used hypodermically has not been satisfactory as an anodyne As a stimulant to the heart's action, it has been used quite extensively by some practitioners

Arnozan, in a recent publication, states that ether when used hypodermically produces an acute neuritis Its action in sciatica is certainly open to investigation, and cannot be harmonized with the above theories, if our present view of the pathology of sciatica be correct Local irritation rarely ever results from its use

Pine Bluff, Ark , April, 1885

MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS

Therapeutics of Jaborandi —M Petithan, in a paper upon the therapeutic uses of jaborandi, claims its efficacy in the treatment of the following diseases

2 In all catarrhal and rheumatic affections, sub acute or chronic, whatever may be their localization

2 In all dropsical conditions, without alteration in the kidney, when anæmia is not too marked

3 In certain cases of pernicious intermittent fever in which reaction is hastened without affecting the action of quinine

4 In malignant febrile exanthemata, especially in scarlatina

5 In diseases of the skin, characterized by dryness, psoriasis, etc

6 In chronic syphilitic disease during the employment of mercury and the iodides

7 In mercurial intoxication

8 Probably in diphtheria

The remedy according to M Petithan, should be used as follows

1 It should be administered when the patient is fasting

2 The dose should vary according to the case, 60 grains being an average quantity

3 The temperature of the infusion should vary according to the degree in which the sudorific effect is desired

4 A local temperature of at least 66° F should be constantly maintained

5 The patient should not be permitted to leave his bed on any pretext unless well covered, in order to avoid variation of temperature and syncope, which may result therefrom

6 Warm drinks should be administered if the patient is thirsty, a condition very rare owing to the salivation produced by the drug

7 The employment of a good quality of the drug, that of Coutinho being the best

8 To have at hand stimulants such as ammonia, etc , to sustain the patient

9 If necessary to administer an antidote, M Petithan suggests the employment of belladonna —*Bulletin General de Therapeutique*, July 15, 1885 —*Medical News*, September 26, 1885

MEDICINE

Poisoning by Cocaine —Dr W B Merriman reports the following case C J , aged 28 years, formed the morphine habit by taking it for sick headache On or about May 1, he went to Cleveland and was advised by a physician to take cocaine, and it sickened him He commenced by using one drachm of the four per cent solution per day, and gradually increased the dose till he was taking from five to seven drachms per day hypodermically I was called to see him on September 17, and found him with low grade fever, pulse 100 and very weak, mind wandering, very nervous, had had no sleep for three days, in fact, going through all the grades of delirium tremens Bromides and stimulants quiet him while he is under their influence —*Cin Lancet and Clinic*, Sept 26, 1885

Benzol in Epithelioma of the Eyelid —At the meeting of the Brooklyn Pathological Society, on March 12, 1885, Dr Arthur Mathewson reported the following history of a case An Irish laborer, 50 years old, was first seen October 31, 1883, when he had a growth on the right lower lid, projecting two-thirds of an inch, with an ulcerated surface It had first been noticed, as a warty excrescence, a year or two before, and had lately begun to grow rapidly Microscopical examination, by Dr W H Bates, showed it to be clearly an epithelioma At first the treatment consisted in dusting the granulating surface with calomel, afterwards (at the suggestion of Dr Bates, who had records of two cases of epithelioma treated successfully, in his own practice, with the agent) in applications of benzol After about three months' use of these remedies, applied three or four times a week, the growth had completely disappeared, leaving a smooth, depressed cicatrix On the 1st of March 1885, the man came back, with the history of a small ulcerating spot having appeared some six months before at the outer edge of the cicatrix This was extending rapidly, but quickly began to contract under renewed applications of the same remedies, and was much reduced in size when the patient was presented at the April meeting of the New York Ophthalmological Society On the 1st of May, when the patient left town, it was scarcely noticeable On the 8th of July the man appeared again, with a considerable increase in the size of the ulcerating surface, but it had again yielded promptly to the applications The benzol was brushed over the ulceration and the adjacent surface after they had been carefully wiped, and calomel was then dusted on The applications were made from two to four times a week —*N Y Med Journ*, Sept 26, 1885

TANGHIN IN NERVOUS DISEASES —This ordeal poison of Madagascar, derived from the apocynaceous tree variously named by botanists *Cerbera venenifera*, *C manghas*, *C tanghin*, *Tanghinia venenifera*, and *T veneniflua*, has been made the subject of experiment by M C E QUINQUAUD Its action on the central nervous system is specially characterized by an exaltation of the bulbo spinal reflex activity After a certain number of experiments on animals, M Quinquaud administered an extract to man, in doses ranging between three quarters of a grain and a grain and a half, in various diseases, notably toxic paralyses, tremor, intestinal atony, and incontinence of urine Satisfactory effects were obtained, but only on condition that the use of the drug was ceased as soon as the patients experienced headache, nausea, vomiting, and a certain amount of debility —*Gazette Hebdomadaire*

SURGERY

A MODIFICATION OF THE PROCEDURE OF WIRING BONES —DR WM H FLUHRER, of New York, after describing his instruments for this operation, gives the following details

The bones to be wired are sufficiently bared, but need not be completely denuded The withdrawal of the soft parts for drilling through the smallest possible incision is effected by means of the grooved retractor, which not only retracts but at the same time depresses the obstructing tissues The drill is passed along the channel of the retractor directly to the bone, cutting its way through any overlying soft tissues by an incomplete rotary motion When the bone is reached the drill should never be withdrawn in any degree for fear of fouling, but should be urged onward by a rotary motion with continuous and light pressure The drill being made in one piece, and larger at its head than in the shank its progress, like that of a probe, can be nicely felt as it passes through the bone, which would not be the case were the mechanism for drilling a complicated one or were the drill driven at high speed In drilling transversely through a bone, as in the case of the upper end of the tibia, the passage of the head of the drill through the proximal portion of compact bone, through the cancellous structure, the striking of the distal portion of compact bone and its passage through it can all be clearly discriminated The emergence of the point of the drill having been detected by the finger watching at the presumed place of exit, or being known by the change in resistance, the next step is to pass a loop of silk through the bone to serve as a conductor for the wire suture The silk should be of a thickness barely large enough to fill the notch in the drill When the end of the drill is far below the surface, the fork is needed to deposit the thread in place When the soft parts crowd upon the buried end of the drill, they should be pressed back by using the retractor, then the end of the drill is received into the groove of the retractor, and is easily accessible to the fork carrying the loop of thread When the silk has been lodged in the notch, it is held there by gentle counter-traction, while the drill is cautiously withdrawn without rotation, leaving the thread in its place When the end of the drill is far below the surface, the counter-traction may be exerted through the medium of the fork By a dexterous movement the loop may be shifted from the secondary forks into the crotch of the primary fork around which it plays as a pulley as it is drawn through the bone It is essential that the closed ends of the loops should lie between the bones to be wired If, therefore, a loop needs reversing, a second thread is passed through the existing loop, by means of which the new loop is pulled through the bone into position The free ends of the thread are then passed through the loop and drawn tightly across the face of the bone, thus lining off the broken or sawn surface, and indicating clearly where the drill should be passed through the opposing bone

The conducting loops, or guides, for the wire sutures having been lodged in place, the next step is the drawing of the wires into position The bent end of the wire suture is hooked in the end of a loop of thread which has been freed, and under a little counter traction is fed to the opening while the operator pulls upon the conducting loop and draws one-half the wire through the bone The end of the remaining half of the wire is then caught into a corresponding loop through the opposing bone, and is drawn into position The bones having been brought into close apposition, each wire is embedded before being twisted While the ends are held in their future position the scalpel is drawn alongside, cutting the subjacent soft parts and letting the wires sink down to the bone The tightly drawn ends are then twisted and cut short to the twist, which is turned down The slits in the soft parts are closed over the wire, which is to remain permanently, by a fine catgut suture

By proceeding in the manner I have detailed, the wiring together of bones is a precise, easy, and expeditious operation It can be done without extruding the ends of the bones through the soft parts, it being only necessary to cast the guiding loop of thread over the end of the drill, no matter how deeply the latter may be situated It is easy to carry the wire transversely through the whole extent of bone, thus securing an effective hold upon it. A suture only dipping into the cancellous structure, as is the case in the usual mode of wiring after an exsection of the knee-joint, may be regarded as a slack wire. It generally cuts partly through the soft bone tissue before the surgeon can apply retentive apparatus to the limb. On the contrary, when the sutures have been passed completely through the bones in the manner just described, they alone hold the bones firmly in apposition, and the grating formed by the wires prevents the intrusion of the soft parts. In an exsection of the knee joint, in addition to four wires passed antero-posteriorly, I also bind the bones together by a wire passed transversely, which acts as a substitute for the lateral ligaments. In simple fractures of the patella, exsections of the knee joint, and compound fractures, I have passed the drill more than thirty times, besides being present when others have operated in the same manner, and I have never seen a failure or miscarriage in the execution of any step of the procedure.—*Medical Record*, September 26, 1885.

On Erasion (so-called Arthrectomy) of the Knee.—Mr. G. A. Wright reports to the *Medical Chronicle* July, 1885, his experience with this operation in sixteen cases. The operation consists in opening the joint freely by a semilunar incision, just as in the ordinary mode of excising the knee, the skin is reflected and the capsule removed on each side of the patella and patellar ligament, or, if preferred, the patella may be sawn across and the fragments turned upwards and downwards. If the former plan is employed, free incisions parallel to the long axis of the limb are made on each side of the patella, extending a little above its upper border as well as downwards nearly to the insertion of the ligamentum patellæ into the tubercle of the tibia, the object of this is to allow the patella to be freely displaced laterally, and turned round so as to expose its articular aspect during the process of erasion.

The rest of the operation consists in carefully cutting away with forceps and scalpel or scissors every particle of pulpy granulation tissue, all the infiltrated capsule and the semilunar cartilages, and scraping quite clean all the articular cartilage, picking out granulation tissue from any pits in the cartilage, and, if necessary, gouging away any small spots of diseased bone. The process must be most thorough, and extreme flexion of the limb is required to completely expose and clean the posterior part of the joint, the crucial ligaments are scraped, but carefully preserved, the lateral ligaments usually divided.

The upper synovial sac must be thoroughly cleaned. The most difficult part of the operation is getting away the posterior part of the semilunar cartilages, and the synovial membrane at the back of the joint.

The process is a tedious one, often taking one and a half or two hours, including the subsequent putting up in a splint. As soon as all bleeding has been stopped, the limb is fixed on an excision splint and dressed in the usual method, antiseptically. Wood wool is the dressing Mr. Wright prefers, from its perfect absorbent properties, and the firm, even support it gives, drainage should be at the back of the joint on each side, as after excision, the tubes being carried through openings made behind the joint. He prefers to Esmarch the limb before beginning the operation.

His reports include cases of pulpy disease with no suppuration, cases with varying amounts of bone disease, some with extensive abscess, some with small amounts of abscess, and, finally, cases where there was general tuberculosis. In those that have done well the common factors appear to be (1) Absence or very small amount of suppuration. (2) Superficial or at least not wide spread bone disease. (3) Absence of general tuberculosis. In short, fairly early disease in a not hopelessly tuberculous child. Although in one case a freely movable joint resulted, he does not advise the attempt to obtain motility by early passive movement, except in a few instances where the wound has healed at once, and there is no obstacle in the way, such as dense and lowly vitalized cicatricial tissue. Erasion, if it fails, leaves the limb in little, if at all, worse condition for excision afterwards. In those cases where amputation became necessary, either the local or constitutional condition forbade hope of successful excision. Where it succeeds, erasion leaves as sound a limb as excision, without shortening. The limb is very liable to become flexed after healing of the wound. He thinks, then, that in suitable cases erasion is, in disease of the knee, better surgery than excision, but its application is strictly limited.

Treatment of Incarcerated Hernia by Ether Irrigation.—In the *Russkaia Meditz.*, No. 3, 1885, p. 62, Dr. V. Bartosz, of Romny, Poltava Government, writes that during the last two years he used ether with brilliant success in all his cases of strangulated hernia, seventeen in number. Irrigation was performed after Finkelstein's method, that is, a tablespoonful of ether was poured over the tumor every half hour. The hernia disappeared spontaneously, or under slight pressure in the worst cases, within four or five hours. The duration of strangulation varied between a few hours and four days. The author describes, also, a case of internal intestinal obstruction in a woman, aged 60, with nine days' constipation, incessant fæcal vomiting, tympanites, thready pulse, etc., in which, after all the usual means had failed, ether irrigation all over the abdomen brought about profuse stools in an hour and a half, the patient completely recovering.—*London Med. Rec.*, 1885; *Practitioner*, July, 1885.

Veterinary Surgery.—Mr. Snarry, a veterinary surgeon, has accomplished a novel feat in the way of surgery. A cow on the Westow Grange Farm, near York, broke its leg, and there being no chance of reducing the fracture, the limb was amputated, and Mr. Snarry tried the experiment of affixing a wooden leg. This has been found to answer admirably, and the cow may be seen grazing, with a calf by its side.—*The London Medical Record*, September 15, 1885.

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE
PER ANNUM, IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned When neither is accessible, remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, OCTOBER 17, 1885

HARD TO PLEASE

It is an old saying that none are so blind as those who do not wish to see And it is equally true that none are so difficult to please as those who have no desire to be pleased This is strikingly exemplified by the course of those few leading medical journals whose editors have undertaken to place all the obstacles possible in the way of successfully organizing the Ninth International Congress in this country Although it was through the direct influence of a report made by a special Committee of which Dr J S Billings and Dr I Minis Hays, editor of the *Medical News*, were leading members, that the American Medical Association was induced to appoint a Committee and authorize it to invite the International Medical Congress at Copenhagen, in behalf of the profession of the United States, to hold the next Congress in this country, yet so soon as the Association at its next meeting, held in New Orleans, insisted on having the terms of the invitation carried out by so altering and enlarging its Committee as to make it properly represent the profession of the United States, instead of a certain class in three or four cities, these same men took the lead in claiming that the Association had no right to meddle with the Congress in any way, or even with the Committee of its own creation

When, notwithstanding their protest, the enlarged Committee, composed of able representatives from the several States, held its first meeting, and had only partially accomplished its work of preliminary organization, and before any authorized publication of the action taken, these same men, with a few friends, backed by the *Medical News*, *Medical Record*, and the *New York Medical Journal*, commenced a sudden but well concerted scheme of revolt or withdrawal from all participation in the Congress "as then proposed to be organized" This unprecedented and most unjustifiable course was ostensibly based on the pretense that the Committee had restricted the American Membership to delegates from the American Medical Association and the State Medical Societies in affiliation therewith, leaving out the national organizations of specialists, and thereby excluding large and influential portions of the profession from participation in the Congress But when, after time for further consideration, the Committee of Arrangements held another meeting, and unanimously adopted Rules by which membership of the Congress was opened to all "members of the regular medical profession" in this and other countries alike, as fully as has been claimed for preceding Congresses either by Sir James Paget or Dr Noyes, and from which all allusions to ethical codes, creeds, or distinctions of any kind were carefully excluded, the same parties and organs declare that the Committee has offered no compromises and has given no heed to the sentiments of distinguished men in Europe

When the Committee of Arrangements, after adopting Rules with which the opposition could find no possible fault, and filling a sufficient number of appointments to constitute, under the Rules, the working part of the Preliminary Organization of the Congress, all further management of the affairs of the Congress was transferred to that organization, thereby making it as independent as any preceding Congress, the *Medical News* manifests its disgust by expressing the hope that the nation may be spared the disgrace of having the Congress held in this country, and singularly enough the *Medical Record*, not quite willing to have the Congress removed from this country, turns as its last hope to some *action* of *the American Medical Association* at its coming meeting in St Louis for relief

Finally, when the members of the recently created Executive Committee of the Congress itself hold their first meeting, and, in accepting the responsible duties assigned to them under the Rules of Organization, they declare that in doing so, it is with the full understanding that their action is to be restrained only by the Rules already adopted by the Committee of Arrangements, all three of the leading organs of opposition substantially charge the Executive Committee with rebellion against the authority of the Association, and with one accord, rehash and republish the full list of those who had *declined* months previously to participate, not in the present organization, but in the organization as suggested at the first meeting of the Committee, in June last. Verily the managers of those journals must be hard pushed for material when they, by concert, resort to such subterfuges to keep up an appearance of opposition. They well know that the republication of this, now obsolete, list of declinations can have no effect in this country, but they evidently hope to keep up the impression in foreign countries of opposition to the present organization, and thereby discourage attendance from those countries. It is evident, from all the foregoing, that nothing has been done in the past, or will be done in the future, pleasing to those parties, except the action of the American Medical Association in Washington in 1884, when, yielding to the arguments of their own report, it adopted the resolutions by which they were appointed a Committee with what they supposed to be *plenary power* to appropriate the chief offices of the Congress to themselves, and distribute the rest among their personal friends.

LACTIC ACID IN THE TREATMENT OF LARYNGEAL PHTHISIS.

The suffering caused by tuberculosis of the larynx is so great, and the treatment of this affection is so unsatisfactory, that any remedy, which promises better results than have been attained hitherto, will be hailed with joy by physician and patient alike. We do not wish to assert that such a remedy has been discovered in lactic acid, but it has yielded such gratifying results in the hands of a German physician, that we think it should be brought to the notice of the profession in this country. The physician in question is DR. H. KRAUSE, a "privat docent," who in his capacity as an instructor seems to have ample clinical material at command. He has published his experience with this agent in the *Berliner klinische Wochenschrift*, of July 20, 1885, in an article entitled "Milchsaure gegen Larynx Tuberkulose."

His attention was first directed to lactic acid as a corrosive agent through a contribution to the *Centralblatt für Chirurgie*, No. 12, 1885, from the pen of V. Mosetig-Moorhof, who had employed it with great advantage first in caries fungosa, subsequently in lupus vulgaris, superficial epitheliomata, and in one case of broad, flat papillomatous growth. Mosetig-Moorhof found that the application of concentrated lactic acid caused the diseased tissues to assume the appearance of a blackish broth, while the healthy structures remained uninjured. The epidermis appeared softened and easily removable, yet the cutis was found to be intact. Dr. Krause says the idea of using this acid in tubercular laryngitis was suggested to his mind by the relation supposed to exist between tuberculosis and lupus, and by the unsatisfactoriness of all forms of treatment adopted up to that time. Moorhof had insisted that in order to destroy diseased tissues the acid must be brought into prolonged contact with them, but, realizing in the outset the difficulty of making so thorough an application to the larynx, Krause was not sanguine of success. He selected for his experimentation fourteen persons who had all been treated by means of sedatives, antiseptics and astringents without notable amelioration of the local symptoms. They all presented, on physical examination of the chest, well marked signs of pulmonary tuberculosis, and, upon laryngoscopical inspection, evidences of advanced inflammation. There were all gradations of the laryngeal disease, from greater or less infiltration, or mere ulcerous erosions to deeply penetrating ulcerations, severe perichondritis and infiltration of the highest degree, together with œdema of the mucous membrane. These cases are described at length, but their enumeration here would occupy too much space. The tuberculous nature of the laryngeal affection, Krause thinks, was placed beyond question by the discovery in each of the fourteen cases of the characteristic bacilli.

The author first applied a ten per cent. solution of the acid. The larynx was found to be quite sensitive to it, although this effect was transient. As rapidly then, as was deemed safe, he passed to the use of solutions of twenty five, forty, fifty, sixty, and even eighty per cent. The weaker ones, up to fifty per cent., were attended by the same insignificant symptoms, whereas the stronger ones produced quite violent effects, such as temporary spasm of the glottis and a feeling of burning and dryness, which last persisted anywhere from one to six hours. Krause thinks it necessary to rub the acid thoroughly over the parts and allow it to remain in contact therewith for a short time. As applicator he recommends a not too soft piece of sponge or cotton. In order to reach the more deeply seated ulcerations he employed a syringe by which he applied the medicine in drops. The more violent symptoms soon passed into the sensation of a mild burning and a sourish taste. Other subjective effects were not noted, and even those described were greatly lessened by the application of cocaine previous to the acid. The laryngoscope now revealed a conspicuous paleness and diminution in the thickness of those parts which were previously red and swollen. Occasionally after the application of the stronger mixtures, and constantly after that of the strongest, healthy portions of the mucous membrane had the appearance of being covered with hoarfrost Where this was the case, the more unpleasant effects lasted longer, and the hoarseness was temporarily increased In the next few days the ulcers were observed to be covered by a firmly adherent eschar At the same time were observed a decrease in the swelling and infiltration, and, after separation of the slough, a growth of healthy granulations upon the bottom of the ulcers Excrescences disappeared, while the ulcerated spots cicatrized and contracted These local changes were accompanied by less difficulty in swallowing and an improvement both in the voice and subjective sensations

In one case the ventricular bands, which previously ulcerated and tumefied had touched each other in the middle, looked after two days as if underneath the slough, from their anterior extremity to the point of greatest infiltration behind, they had been hollowed out in places, while they were sharply distinguished by their grayish color from the pinkish hue of healthy parts posterior After the separation of the slough, their deeply depressed surface appeared cicatrized, and close beside the bands crossing it were tiny excavations that looked as if they might have once contained tubercles Altogether, there was a strong similarity to Mosetig-Moorhof's description of lupus after its treatment with the acid Where no slough formed, a retrograde process was developed by which the infiltration and swelling gradually diminished As soon as healthy granulations sprang up after a slough had been cast off, Krause applied the acid to these, with gratifying results, as attested by a most interesting case In spite of assiduous treatment with approved remedies, the condition in this case had gone on from bad to worse until the parts had all lost their normal configuration, the vocal cords were distorted by excrescences and ulcerations, and swelling existed everywhere, so that deglutition was most difficult Upon the free use of strong solutions of the acid the swelling and œdema disappeared, ulcerations shrank and cicatrized, the vocal cords regained something of their normal smoothness, and the act of swallowing again became possible Submucous infiltration and swelling became most readily absorbed when the acid could be made to reach the parts directly, which was done by scarifying the mucous membrane, if rendered necessary by the absence of ulcerations As might be expected, the results were different according to the location and extent of the local changes, and the general condition of the patient Pain and secretion were always lessened and deglutition made easier

In a word, Krause thinks he has discovered in lactic acid a therapeutic agent by which thickening and œdematous infiltration due to perichondritis can be diminished, excrescences removed, and ulcerations cicatrized and contracted, as in one instance where the vocal cords, notched and ragged, became tolerably smooth and even Where the constitutional disturbance is not too profound and the laryngeal destruction not too deep, the extension of the disease within the larynx can certainly be controlled, and in graver cases, pain can be relieved and the act of swallowing rendered less difficult—even if nothing more can be accomplished In comparison with other therapeutic measures, this is assuredly a great gain Krause has likewise found the acid serviceable in affections of the nose and pharynx attended with hypertrophy and granular degeneration, or tenacious and obstinate secretions

LATENT TALENT IN THE PROFESSION

In the *British Medical Journal*, of August 22, is a very excellent editorial article on "Culture in the Medical Profession" Of it, however, we can only say that it urges upon medical men the importance and benefits to them and to the public of extending, when possible, their accomplishments beyond their professional sphere To a certain extent—and to a large extent, this is true But it would seem that outside work, and outside accomplishments, should be taken up with the view of at some time utilizing them in professional work The list of medical men who have become distinguished in other fields than medicine is long and exceptionally brilliant—but as a rule in these cases they have distinguished themselves more in the outside field than in their proper life-work

It is an unquestionable fact that a man must write if he would be known It is not always the most brilliant man who wins the most reputation, or who has the largest clientèle, nor is it the most steady plodder, who does his work methodically, who is most often quoted as an authority, nor yet is it the man who has a paper for every meeting of his medical society, and one a month for every journal that will give him space But in the greater number of cases it is the man who writes well, and who always has something to say when he writes And this leads up to another matter, which seems to be looked upon very often as an accomplishment, and but too seldom as a necessary accomplishment—a knowledge of the English language, or, more properly speaking, of the mother tongue, for our remark is equally true of writers in other languages It is a curious and lamentable fact that the proper study of the mother-language is neglected in every country Children are pushed into ancient languages and other studies before they can frame a correct sentence in their own language, with the hope, that is but too seldom realized, that they will learn it at a later day The effects of this neglect are but too often seen in the writings of those whose education has been thus abused But we trust that no one will think that we refer especially to Americans in speaking of this matter Americans, as a rule, write as well as their English cousins, and it must be said that both the English and Americans are much less diffuse in writing than the Continental writers

The medical men who will be leaders of medical thought twenty years from to day will be those who commence to write now, and who will *learn* to write later, for it is not to be supposed that anything like perfection in writing will be attained without much labor and study One of the most desirable and useful accomplishments for a physician, therefore, is the ability to write well in his own language—and it should be considered as a necessary accomplishment, as it seems to be no longer regarded a necessity in itself To read and write a foreign language with ease is certainly very desirable, but it should be considered as a matter rather secondary to that of learning the mother tongue, for he who only half knows English, and becomes proficient in French and German (and possibly Italian), will in the end inevitably produce a compound that is neither pleasant nor correct It might almost be said that one can never attain to perfection in writing a language, but such a degree of proficiency may be attained that what is written is pleasing and easily understood We know that the best writers are those who so express themselves that the reader grasps their ideas without direct effort, and it is equally certain that he who can express in one page what another can scarcely crowd into two, has an enormous advantage

Their are hundreds of young men in this country who are allowing talent to lie fallow To them we would say begin to write now, if what you write does not suit you, or does not suit the editor to whom you send it, re write it, for the fault is not in the editor who rejects it, but in the writing—supposing that there is anything of value in the foundation of the article It is a well settled fact that those who become distinguished as writers begin to write early in their professional career It is very seldom that a man will commence to write late in life And as a rule, he who begins to write late in life is much more impatient of having his writings corrected than the young writer Those who write much know that it is a part of the duty of an editor to revise manuscripts, and that he makes corrections equally for the benefit of the writer and of his journal Few editors have the time to revise a paper for the pleasure it gives them—and one who can derive very much pleasure from this work, or who can regard it as a pastime, must have an abnormal view of what constitutes pleasure

There are doubtless some who will think that we are wasting our own and the reader's time in making these suggestions—and it is likely that to many we are speaking to the wind, for it is not difficult to find those who are so well satisfied with themselves that they are as heedless of advice of this kind as they are careless in their use of language There are many who resent any interference on the part of an editor with what they are pleased to term their "English,' but who would be much chagrined, if they really know the language, to see that they have committed such offenses as using "allude" for "mention," "apt" for "likely" or "liable," "preventitive" for "preventive," "instances where" for "cases in which," "diagnose" for "diagnosticate," and a few hundred other common errors, such as capitalizing every other word (except proper names), which could be easily avoided by studying one or two of the many books regarding the use of words—and occasionally consulting a dictionary We have said nothing of the errors in grammar which are so common, for, first, the writer who persistently makes these errors is almost hopelessly lost (as is his reader when he attempts to understand what is written), and, secondly, because when a person has sufficient self-respect, and consideration for others, to be careful in his usage of words, he has already become careful as to the framing of his sentences

There are few physicians who do not see at least two or three cases every year which are worthy to go on record, but the case should be first carefully observed, and then carefully reported It is entirely unnecessary to wait for a case such as has never, or but very rarely, been observed before A careful report of an interesting case of diabetes or phthisis will have many more readers than a report of a case of tylosis of the hands, with half a page of bibliography So, also, the writer who knows when he has finished a paper, and stops at the end, will find more readers than he who writes rather by the amount of paper at his disposal than by the ideas to be presented Lastly, use English words, and a short word when it will serve the purpose of a long one Do not sandwich German and French words in English sentences, as is often done by those who are beginning to learn a foreign language. One who does not know German might think that a new preparation was meant when he reads that a patient was ordered to use an "Opium stuhlzapfchen" at bed-time, and would be disappointed to learn that is only a common opium suppository.

SOCIETY PROCEEDINGS.

MEDICAL SOCIETY OF VIRGINIA.

Sixteenth Annual Session, held September 15, 16 and 17, 1885.

(Concluded from page 415.)

THURSDAY—AFTERNOON SESSION.

After the induction into office of the President-elect, Dr. Rawley W. Martin, the retiring President, Dr. S. K. Jackson, was elected an Honorary Fellow of the Society.

THE REPORT ON ADVANCES ON HYGIENE AND PUBLIC HEALTH

being called for, Dr. Edwards announced the sudden death of the reporter, DR. WM. H. COGGESHALL, of Richmond, Va., on September 7th, just after he had finished his paper. By unanimous vote Dr. Edwards was requested to read the report, as prepared by Dr. Coggeshall, after which it was ordered to be published. His subject was

THE RECENT EPIDEMIC AT PLYMOUTH, PA., AND THE LESSON IT TEACHES.

He gave in detail the history of the epidemic of typhoid fever which has lately so decimated the town, and showed conclusively that from the non-sanitary care of the excreted products of one adult lying sick with a serious attack of the fever, the entire epidemic was traceable. A man living within fifty feet of the bank of the mountain stream from which the residents of Plymouth derive their main supply of drinking water, was taken sick about January 1st, 1885, with typhoid fever, contracted in Philadelphia, and during the months of January, February and March all his dejecta were thrown out—without any precautionary care as regarded disinfection—upon the snow, and in a common country privy without vault or earth-box, where the contents remained for the time simply on the surface of the ground. These two different piles of poisonous excretory matter were not thawed until March 25th, when a warm rain carried the non-disinfected mass into the stream, dissolving it and liberating the hitherto hibernated noxious organisms, and after the usual incubatory period of ten to fifteen days had passed, citizens using hydrant water were taken down with the same disease in different parts of the town, until within ten days from the outbreak, nearly if not quite one thousand people were sick with the fever. During this time not one person using well water was attacked with the malady, but Plymouth having no drainage system except upon the surface, besides having many of its privies constructed without vaults, and being abominably dirty itself, according to all disinterested accounts, the wells soon became polluted with the specific poison germs of the disease, and ceased to yield safe drinking water. No one habitually using Susquehanna river water (near at hand) and employing ordinary care, was stricken down by the malady. One in seven, in a city having a population of about ten thousand, suffered, more or less, from the fever during the epidemic, and over three hundred lost their lives before its finality.

After specifying a number of peculiarities of the malady, the writer offered the following as conclusive lessons taught the profession by this one particular epidemic of typhoid fever:

1. That from an exceedingly small and apparently trivial source of infection, danger to a large number of persons may arise in the course of a zymotic disease.
2. That whatever doubt could previously exist in the mind of any member of the profession regarding the power of previously pure running water to become an active carrier of typhoid infective germs, has by this epidemic been entirely dissipated.
3. That the uncleanliness and non-sanitary condition of a town or city prolongs, in the direct ratio of its extent, the stay of an endemic or epidemic in such place.
4. That during a typhoid epidemic—and especially in its early stages—cases of the disease may, and do, occur where the patient, having proper sanitation at home, receives the poison germs into the system by the simple imbibition of water containing such organisms elsewhere than at home, without his or her knowledge or suspicion.
5. That a town can not afford to remain in an uncleansed condition, however remote danger from zymotic disease may otherwise appear, as such uncleanliness is a direct invitation to certain contagious and infectious diseases to establish a firm foothold in that place.
6. That a typhoid epidemic occurring in a city, once brought into existence from any cause, is easily enlarged and more fully developed by neglect of well-known and easily effected individual and municipal sanitary measures.
7. That the water supply of a town or city—notwithstanding the safeguards commonly thrown around it by the municipality—can easily be transformed, suddenly and unexpectedly, by contamination, into a poisonous condition for the uses of a community, from a source at once remote and individual.
8. That careful and thorough disinfection of the excreted matter—both liquid and solid—voided by a typhoid fever patient, is of the utmost importance to the health of the surrounding community, whether in city or country, but, owing to lack of proper sewerage facilities, especially so in the latter.
9. That the physician practicing in a rural district which is in any manner, remotely or directly, connected with the water supply of a corporation, should exercise more than ordinary precaution to see that such water supply is placed in no danger of receiving

contamination from his patients, either actively or indirectly

10 That although it has been the custom in past years to look upon the water of city wells in general as far more liable to hold contamination from poisonous organisms than water furnished from reservoirs, yet the "Plymouth epidemic" has shown that a condition exactly the reverse may exist

11 That to eliminate all possibility of poisoning in this manner, from sewage or excretory matter, either through carelessness or ignorance, no human habitation should be allowed by law to exist near the source of a city's supply of drinking water

Dr Coggeshall closed by advising his hearers to recommend to the families under their care a more careful study of hygienic questions—so much of the comfort and happiness of life depending on a knowledge of such matters And especially in view of the probable incursion of cholera next summer, he thought a great deal depended on the work done by physicians before that time in educating the people in sanitary knowledge as to whether the scourge shall leave this country in a decimated condition or the reverse

Hon Fellow J E Chancellor, of the University of Virginia, read an interesting paper on the

HISTORY, EVILS AND ADVANTAGES OF INHUMATION AND CREMATION

The subject was opened by reference to the sanitary regulation of this country, the organization of the American Public Health Association and the National Board of Health, the rapid development of sanitation and hygiene They had grown from almost absolute darkness into noonday light, and by this better light we were enabled to detect many of our errors and prejudices which were the accepted facts of the past For centuries past we have been looking through a glass darkly dimmed by errors and sentiment born of heathen superstition and fostered by ignorance No foul vapor polluted the earth beneath or air above, there was no decaying remains of man or beast to poison or destroy life The custom of interment of the human body had been handed down from generation to generation In the progress of time new customs and a new civilization developed, giving rise to different views and faiths as to things beyond the grave, which led indirectly to the disposition of the human body in various ways, viz Exposure, inhumation, embalming, and cremation Reviewing briefly the origin of these, stating incidentally early Egyptians had their Sautterians who, at an early period, detected the germ infection of the living by dead bodies decomposing With the ancients, who believed in the immortality of the body as well as the soul, the disposal of the dead body was made with reference to their belief It was conceded that earth burial with the Greeks and Romans was the more ancient mode, and that our present funeral customs are largely derived from them The Greeks and Romans recognized earlier than any other nation the injurious effects of intra-mural interment, and passed stringent laws prohibiting it The evil effects of the earth burial custom similar to ours were recognized 1600 years ago History teems with proof of epidemics caused by decomposing human bodies, as established by St Augustine and others The investigation made an hundred years ago by Pintolli and Navier (1775) was cited as proof, also those of Ambrose Pare In 1849 the city of London selected a commission of eminent scientists and medical men to examine the city cemeteries Their unanimous report was that they were dangerous to public health and the cause of many severe epidemics This commission, in speaking of the condition of many church-yards, stated that they were abominable, the smell revolting and distinctly perceived in the adjoining houses, in all of which choleraic and diarrhœal disease had occurred Quoting from Sir Henry Thompson, a distinguished sanitarian of London, who had examined nearly a thousand authorities as to the dangers of earth burial, he says that thousands of human lives are cut short by the poison of slowly decaying dead and diseased animal matter

Mr Spencer Wells states that decomposing human remains so pollute the air and water as to diminish the general health and average duration of life Dangers of earth burial were from the contamination of water, the air, and direct infection from exhuming remains and opening vaults, and the elimination of gases, etc Investigations in every age, from Hippocrates to the present, have proved that polluted drinking water is the most frequent source of zymotic disease The yellow fever epidemic in Portsmouth, Va, in 1855, was due to bilge water pumped upon the dock from an infected vessel And the recent epidemic of typhoid fever at Plymouth, Pa, was caused by pollution of the city's water supply from the excreta of a case of typhoid fever near its source What may we not expect from decomposing human bodies in the long used cemeteries and burial grounds of towns and cities Much other testimony was cited to show that the whole list of zymotic and infectious diseases are capable of transmission per the contamination of water and air supplies Soil and air infection was proved by recent investigations of MM Pasteur and Darwin, and also by the investigations of Dr Domingo Freire, of Rio de Janeiro, as to the causes of a recent epidemic of yellow fever in that city He discovered that the soil of the city cemetery in which the victims of this epidemic were buried, was alive with microbian organisms like those found in the emesis and blood of those who had died of the fever Professor Brachi's experience of the plague in Modena, in 1828, showed the effect of soil infection from victims of the plague who were interred three hundred years before The terrible virulence of cholera in London, in 1854, was attributed to the same cause, viz the upturning of the soil where the plague-stricken people were buried two hundred years before The epidemic of yellow fever in New Orleans in 1853, and the great mortality (452 per 1,000 of the population), in the 4th district, was supposed to be due to the proximity of cemeteries in which three thousand bodies had been buried the year before The custom of France, Germany, and Brussels restricting the excavation of wells within certain distance of the place of burial, was alluded to, and regrets expressed that there was no such judicious sanitary regulation in the United States The views of Sir Lyon Playfair, of London, were also cited in proof of soil infection by the dead, giving rise to the "Roman fever" Chemistry and the microscope have assisted in detecting the evils arising from inhumation of the dead, and with the progress of sanitation and hygiene of the present day, pointing out the errors of the past and offering a better and more certain protection to the living, we shall, in the near future, have a less objectionable way of disposing of the dead, which he proceeded to show was cremation, in that it was "safe, secure, permanent, innocuous, and at the same time practical, reverential to the dead, and offering no violence to the feeling and rights of the living"

Cremation of the 19th century was shown to be very different from that practiced by the ancients, a brief history of which was given He was not forgetful of the fact that the public mind, with its prejudices established by long usages and moulded as a semi religious sentiment, was not prepared to receive suddenly any radical change that centuries had endorsed, the demand for it must be made plain, and this must come from the educated and cultured, patient investigators and searchers after truth, those who mould public sentiment in all questions that pertain to the ill or good of their fellow-men Cremation is attracting the attention of men of science and the general public in all countries Sir Henry Thompson has done much to attract the attention of the English and American people to this subject An account was given of its rise and progress, not only in Europe, but also in this country Dr J M Keller, of Arkansas, was mentioned as an able advocate of cremation as a substitute for earth burial, also, Dr W K Curtis, of Chicago, and John Morris, M D, of Baltimore, Rev J D Beagley, of New York, and many of the leading scientists, sanitarians, divines and journalists of the present day From a sanitary point of view, none can doubt that cremation is preferable to sepulture

Dr Philip Taylor, of Richmond, in his

REPORT ON OPHTHALMOLOGY AND OTOLOGY,

mentioned the practical benefits to be derived from the use of jequirity in trachoma, with or without pannus, and insisted on the fact that chronic purulent conjunctivitis should exist when jequirity is used The recent theory of the transmission of sympathetic ophthalmia by means of the intervaginal lymph spaces of the optic nerve was given and conclusions as to the conveyance of the septic poison by the ciliary nerves from the diseased or injured eye to the sound one—the once popular theory—were drawn The use of cocaine was referred to as one of the most important discoveries made in ophthalmology for many years Numerous operations that have been brought to the notice of the profession during the past year, were referred to, notably the one for pterygium, by Dr Prince, of Illinois, another for evisceration of the eye ball as a substitute for enucleation, and also one for transplantation of the cornea in case of considerable opacities of the cornea rendering iridectomy impracticable The danger of the operation for internal strabismus in the young, and making the correction absolute—pointing out the fact that as maturity comes on insufficiency is quite liable to follow, thus causing external squint

In otology some recent preparations for purulent ear trouble were discussed, especially peroxide of hydrogen New Eustachian catheters and the method of using bougies for dilating the tube, was approved The relation between diseases of the teeth and ear was referred to, and statistics given showing that sympathy exists between these organs

Dr Jos A White, of Richmond, read some

CLINICAL NOTES AND PRACTICAL OBSERVATIONS FROM THE RICHMOND EYE, EAR AND THROAT INFIRMARY

(See page 423)

Dr Charles M Shields, of Richmond, read a

REPORT OF CASES OF TRACHEOTOMY IN LUPUS OF THE LARYNX AND DIPHTHERIA

He mentioned the great variety of cases of lupus of the larynx, and selected the case of a retired physician, aged 55 When he first presented himself for examination, his symptoms were loss of voice, some pain in swallowing, and some dyspnœa Laryngoscopic examination showed the epiglottis to be normal in appearance, but revealed a swelling entirely obliterating the right vocal cord and ventricular band. This growth was covered with pale, tuberculous elevations, having between them superficial ulcerations. The left side of the larynx was healthy, except some general thickening and congestion The patient had never had syphilis, there was no phthisis in his family, nor were there any physical or constitutional evidences of phthisis in the patient There was also no history of cancer in his family Thus the three usual causes of laryngeal ulceration, syphilis, phthisis, and cancer, were excluded, and the probability of lupus suggested This view was further sustained by the fact of there having been some skin manifestations of the same disease in the form of two points of ulcerations on the face that resembled lupus, and that would not heal until excised He was treated with iodide of potash and cod liver oil, and by local insufflations of iodoform and bismuth No improvement occurred, however, and he continued to grow worse until about seven months after he first presented himself, and about two years from the beginning of the disease, when the left side of the larynx had become involved, and dyspnœa was so great as to necessitate tracheotomy The larynx now presented the appearance as described by Morell Mackenzie, Cohen, and others, as peculiar to lupus, and the swelling was so great that no glottic aperture was visible Tracheotomy was performed, from which the patient made a good recovery, and obtained relief from dyspnœa He was taught to remove, cleanse and reintroduce his tube, and when heard from the following summer was doing well

He also reported a successful case of tracheotomy for laryngeal diphtheria The patient was a little girl of three years She had, at first, fever and some dyspnœa. The pharynx showed no evidences of inflammation, and was free from membrane. She was hoarse, and continued to breathe with more difficulty. On the third day two small patches of diphtheritic membrane appeared on the tonsil and posterior wall of pharynx, but disappeared in thirty-six hours. Iron, quinine and whisky were administered, and the room kept filled with the vapor of lime. She continued to grow worse, however, and on the fifth day of the attack was so cyanosed that tracheotomy was performed. As soon as the tube was introduced respiration stopped entirely, and artificial respiration was resorted to. For fifteen minutes no effort at natural breathing was made, and on removing the tube a piece of membrane was drawn from the wound which proved to be a perfect cast of the trachea, about two inches long. After this she did well. The wound became covered with diphtheritic membrane. The tube had to be kept in three weeks before breathing through the larynx was sufficiently good to permit its removal. She made a good recovery.

DR. CHAS. R. CULLEN, of Henrico Co., forwarded a paper on

INFANTICIDE.

This paper does not follow the ordinary routine found in the text-books on medico legal jurisprudence, but merely seeks to call attention to the weakness of Virginia laws on the subject. Dr. Wm. H. Taylor, coroner of Richmond City for about thirteen years, furnishes statistics of 139 cases tried for infanticide during his term of office—forty-three whites and ninety-six negroes. Of the total number, not a conviction followed. The laws of England and Scotland have succeeded better. Of sixty eight trials for infanticide, in London, fifty three convictions followed. In New York and Pennsylvania, the laws are much more certain of securing convictions than in Virginia. The very harshness of the Virginia laws causes them to fail of good results. Dr. Cullen reports two cases of trials for infanticide which had come under his notice, showing the weakness of the Virginia laws, and he now calls on the Medical Society to aid in re-framing the State laws relating to infanticide.

Voluntary papers being in order, DR. L. ASHTON, of Falmouth, read a paper entitled

A PLEA FOR TRACHEOTOMY IN CROUP.

The good that is to result from the timely performance of tracheotomy is so great that it should be placed among the minor surgical operations. This classification would materially help to popularize it, and take from it that dread that parents so often have regarding it. The operation, in itself, is comparatively free from danger, but is a delicate one, requiring coolness and caution, and when performed hurriedly, is too often made difficult and dangerous. The operation not being dangerous in itself, nothing connected with its mere performance should influence the time when it is to be resorted to. As soon as it is decided that a positive mechanical obstruction to the entrance of air into the lungs, exists, operate, before secondary complications can occur—such as broncho pneumonia, œdema of the lungs, prostration of nervous energy, etc. In the majority of cases of croup, death results from want of oxygen in the blood. It should be performed in all cases where the croup is progressive and unaffected by medical treatment. In a number of cases, the extension of croup is arrested by tracheotomy. The admission of air into the lungs through an artificial opening in the windpipe secures entire rest for the diseased larynx, and this leads to a suspension of diseased action there. The diphtheritic process, clinically speaking, stops at the level of the vocal cords much oftener than is commonly supposed. When the disease involves the trachea, it is by propagation from the larynx, and not by a simultaneous attack on the larynx, trachea and bronchi, and this extension downwards is generally prevented by early tracheotomy. Since the operation alleviates suffering, mitigates the symptoms, obviates secondary complications, and does not add one element of danger to the original disease, there ought to be no delay to its early performance. Many children have even been brought to life again by it, with the aid of artificial respiration.

EVENING SESSION.

DR. J. S. CONRAD, Superintendent of Matley Hill Sanitarium, near Baltimore, Md., by invitation read a paper on the

PSYCHOLOGICAL ASPECTS OF SUICIDE,

of which the following are the conclusions:

1st. Suicide increases with the advance of civilization, and is but little known in the savage state of men.

2nd. The act is an intelligent act, (?) done with a full consciousness of the act—as shown by the method of execution—whether by the sane or insane.

3rd. That suicide is done always for the purpose of escaping an evil, and for the benefit of the *felo de se*—whether by sane or insane.

4th. That it is a voluntary act, (?) whether by sane or insane.

5th. That it is an emotional act, whether by sane or insane—however deliberately planned and executed—since deliberation enters into the mind of both mental states.

6th. That delusions are not essential to the distinction as to the sanity or insanity of the suicide, since authorities affirm that delusions are not essential to the proof of insanity.

7th. That suicide is rare in the first class. Insanity (by Maudsley) viz. intellectual or ideational insanity; but does occur in the vast majority of the second class—or affective or emotional forms of insanity.

8th. Query? Is suicide an intellectual act—notwithstanding the intelligence exercised in its execution? or is it an emotional act *per se*, since we have seen that the emotional part of mind dominates the ideational centres, and perverts the mind into becoming its humble servant.

9th. Does moral depravity satisfactorily account for it, when we have seen that moral depravity is a factor of both sane and insane?

10th. That in doubtful cases of the sanity or insanity of the *felo de se*, very great caution is necessary in making up a just judgment as to the one or the other

Dr Archer Atkinson, of Baltimore, being present by invitation, read a paper on

IRRITABLE RECTUM,

embracing the very many causes of this distressing trouble, such as the great vascularity of the part, the abundant nervous supply from the cerebro-spinal and from the sympathetic system of nerves, and the frequent sources of congestion from riding, dampness, and from the irregularity of emptying the bowels, especially in the travelling classes He dwelt at some little length on the anatomical relations of the part to the urethra, the prostate gland and neck of the bladder in male subjects, and on its proximity to the bladder, vagina, and the uterus in the female The speaker referred to the efficacy of carbolic acid injections into the body of hæmorrhoids, and of the advantage of combining tincture of opium injections with the fluid extract of krameria with glycerine, to prevent as well as to allay tenesmus of the bowel and to favor reduction of the hæmorrhoidal mass and of the thickened mucous membrane A clinical case was given of a lady over 60 years of age in whom the artery of a large bleeding hæmorrhoidal tumor was ligated in a novel manner, the vessel having been rather felt than seen nearly an inch up the bowel, in the midst of a large growth, was embraced between the two ends of a stout carbolized ligature, the needle having been entered to the side of the centre of the mass and brought out on the other side, the loop including a portion of varicosed substance about one-fourth of an inch in thickness After the removal of the ligature on the seventh day, the bowel was freely washed out, and the mass came away with the returning fluid, since which time the patient has done well, and been free from the *pelvic irritation* from which she has suffered for many years

Dr Wm G Eggleston, of Chicago, Ill , reported a case of

GUNSHOT WOUND OF THE HAND

C H G , a physician, æt 33 years, received an extensive laceration of the left hand while removing the cap from a loaded cartridge containing shot The shell exploded, and the entire charge, so far as is known, passed through the hand The wound extended, on the palmar surface, from a point immediately anterior to the normal situation of the deep palmar arch, between the metacarpal bones of the middle and third fingers tearing the hand completely open thence through to the webbed junction of these fingers, tearing the flesh from the first phalanx of the third finger, save a small portion on the dorsal aspect, and breaking the first phalanx of this finger, and the metacarpal bones of the third and little fingers about the middle third

The wound was thoroughly cleansed with hot water, the clots removed, flaxen sutures put in place, compresses placed over the palmar and dorsal wounds, and the whole metacarpal portion of the hand bandaged somewhat tightly with short bandages, to facilitate removal in case of hæmorrhage The broken third finger was tied to the middle finger, to serve as a natural splint Turpentine was then injected into the wound, and the bandages thoroughly soaked with it Subsequently a drainage tube was put in, and the wound washed out twice daily with a 1–3800 solution of bichloride of mercury

Seven months afterwards, the patient reported that the third finger was practically useless, but that he could do all he wished with the hand, "the grip is good, and the stiff finger seldom getting in my way " In conclusion, Dr Eggleston remarked that it seemed that the third finger (the one most injured) should have been removed, together with a portion of its metacarpal bone

Dr W R Cushing, of Shawsville, read a paper on

PREMATURE LIVE BIRTH WITH THE MEMBRANE INTACT

After reporting a case, in which the child lived some sixteen hours, he called attention to the effect that the possibility of such births must have upon the lung test in deciding whether a child was born alive or not Persons heretofore tried for infanticide have been admitted to be innocent whenever it could be proven that the child had never breathed But in such a case as he here reports, the child could have been deliberately killed after being removed entirely from the mother, and still the condition of the lungs not only would not have testified against the party accused, but would have been admitted as conclusive evidence of innocence

Dr Wm D Hooper, of Liberty, reported a

CASE OF IRRITATION OF THE GANGLION OF REMAK, OR THE INHIBITORY NERVE OF THE HEART

cured by nicotin, according to the suggestions made by Prof Rulliford, of London, in the *London Lancet* It was administered by getting the patient to smoke tobacco While using his first pipe, the blueness faded from his extremities, and the œdema soon subsided to an appreciable extent, and instead of the usual effects of the "first pipe," he felt better at the end than he did at the commencement of it At the end of two weeks of the use of tobacco smoking, the attacks ceased, and he has remained in perfect health since, and is now an active practitioner of medicine in one of our inland towns

Dr Wm C Dabney, of Charlottesville, read a paper on the

PHYSIOLOGICAL AND THERAPEUTICAL ACTION OF ANTIPYRIN

After stating that it was first prepared by the action of acetic acid on aniline, and then giving its physical description, he then mentioned that in healthy persons it causes little or no depression of temperature when a dose of thirty grains is given The frequency of respiration is not affected, but the pulse is always diminished in frequency It generally produces perspiration in healthy persons, and nearly always causes profuse sweating in pyretic individuals The urinary secretion is usually slightly diminished It is eliminated by the kidneys, and is readily detected by the intense red color produced by the addition of a few drops of a solution of perchloride of iron It probably produces its antipyretic effect by direct action on the thermogenic centres in the brain

It is not markedly efficacious in pneumonia, though in some cases it acts admirably Use it cautiously when the time for defervescence approaches lest collapse occur In typhoid fever, two doses of ʒss each at an hour's interval, usually produces a fall of 2° or 3°, which lasts from six to twelve hours, but the course of the disease does not seem to be modified by it, except that it soothes the patient and he drops off to sleep It lessens delirium, too, to a considerable degree It acts favorable upon the nervous symptoms generally, and it also cleans up the tongue It is generally conceded to be useless in remittent fever In puerperal septicæmia, it gives good results —reducing the fever to normal temperature from 105° Dr Boldt, of New York, gave sixty grains in two cases, causing a semi-comatose condition and ' symptoms resembling those of carbolic acid poisoning " In scarlet fever, favorable results are reported, —especially delaying the appearance of the eruption Some say that in phthisis, it has given better results than all other antipyretic remedies combined Others think its desirability in phthisis is questionable It should be given with great caution in this disease for fear of inducing collapse Agaricine or atropia prevents its producing too much sweating It acts unfavorably in pregnant women The unpleasant effects of antipyrin are collapse, and an eruption much like that of measles The dose of antipyrin differs according to the disease In phthisis, from eight to fifteen grains, repeated every four to six hours, is sufficient In typhoid fever, pneumonia, and the like, it has been recommended to give two doses of thirty grains each at an interval of an hour, and an hour later still, give fifteen grains more, but more recently excellent results have followed doses of ten or fifteen grains every three or four hours In children, the dose is a grain and a half for each year of the child's age It may be given hypodermically in doses of from ten to fifteen grains, or by enema in doses of forty to sixty grains When used as a suppository, it is said to have an excellent effect on hæmorrhoids

Honorary Fellow, Dr J M Toner, of Washington, D C, contributed *A Sketch of the life of Dr Elisha Cullen Dick of Alexandria, Va, One of the Consulting Physicians in the Last Sickness of General Washington*, which was received with a vote of thanks and ordered to be published in the forthcoming volume of *Transactions*

Adjourned to meet in Fredericksburg, Va, during November, 1886

AMERICAN GYNÆCOLOGICAL SOCIETY

Tenth Annual Session, held at Washington, Sept 22, 23, and 24, 1885

TUESDAY, SEPTEMBER 22—FIRST DAY

The Society was called to order by the President, William T Howard, M D, of Baltimore

Dr Samuel C Busey, of Washington, delivered the *Address of Welcome*

Dr Busey then read a paper on

THE NATURAL HYGIENE OF THE CHILD-BEARING LIFE

The hygiene of pregnancy related to the preservation of the health of the woman during those periods intervening between conception and the commencement of labor The processes of transformation, development and growth which take place are physiological, but are nevetheless terminated with more or less injury to both mother and child The unavoidable mortality is however, small The process of waste and repair, of growth and development, of organization and construction were next considered There is no border line of health We can not define where the physiological ends and the pathological begins The child-bearing period begins with puberty and ends with the expiration of the years of maturity Fertility increases from the commencement of the child bearing period until the climax is reached, and then declines to its extinction The age of greatest safety of pregnancy coincides with the age of greatest fecundity Beyond and under, the mortality increases with the increase and diminution of age, but the rate is higher with the increase beyond, than with the diminution below the age of maximum safety or least mortality The age of nubility, should correspond with the ages of maximum fecundity, fertility, and least mortality Puberty and nubility are not simultaneous Too early pregnancies were deprecated The speaker thought that nature presented the fifth quinquinial as the period during which the laws of fecundity, nubility and survival find their natural complement in relatively highest perfection He considered first, pregnancies, as the most dangerous, and thought that the danger increased by too early and too late primiparity The importance of lactation was next discussed

The extinction of the child bearing function protects the remaining vital forces from decay, but if the seeds of disease have already been sown, the change of life may increase their activity The author thought that if the age of majority for women could be advanced so as to correspond with the first year of the period of maximum fecundity, popular prejudice and love of custom would sooner or later conform fashion to the law He deprecated precocious matrimony and considered it the sequel of precocious puberty In this country and in the higher walks of life, the ratio of precocious matrimony is on the increase, whether it be equally so among the middle and lower cases, he did not know He concluded by saying that, the principal object of his paper was to direct attention to this subject, and to invite discussion upon it

Dr James R Chadwick, of Boston, stated that he had made a few investigations in regard to the early appearance of menstruation with reference to women of various nationalities in this country In the examination of over 4000 cases, it was found that American women menstruated earlier than women of other nationalities examined Furthermore, American women of American parentage began to menstruate earlier than American women of foreign parentage Scarcely enough observations in reference to the menopause have been made to justify absolute conclusions, but he found to his surprise that the menopause is appearing later in American women If this is corroborated, the conclusion would be that the child bearing period is greater in American women than in women of other countries The fact that the child bearing period is increased both at the beginning and the end, he considered an indication of added vigor There is no question of the fact that the number of children to a family is diminishing, but this can be accounted for by social influences and is common to all civilized communities

Dr Reynolds, of Boston, agreed entirely with the statement made by the last speaker, and he believed that in the community in which he lives, the women of the upper and middle classes menstruate earlier than they did twenty-five years ago He also believed that this indicates an activity of function, which will prolong it beyond the average period of cessation

A point of interest is in reference to the diminution of sexual power He questioned whether this is not more dependent on individuality than on sex He thinks it doubtful that women pass the period for the relation of marriage and of child bearing sooner than men pass the period of procreation This is, however, a most perplexing and obscure question

Dr Henry J Garrigues, of New York, read a paper on

PUERPERAL DIPHTHERIA

This is a disease not referred to in the majority of text books It is one of the forms of puerperal fever, or rather one of the different diseases included under that term It is distinguished by the appearance of diphtheritic exudation somewhere in the genital tract of the puerperal women It is accompanied by well marked general symptoms, imperils life and calls for active treatment The paper is based upon twenty seven cases treated in hospital practice, and two cases occuring in private practice The characteristic feature of the disease is the diphtheritic infiltration which is usually of light pearl-gray color Generally appearing in small spots, and coalescing or extending by involving new areas, the exudation is firmly adherent to and imbedded in the underlying tissue It is most marked at the points where the canal becomes narrow This may be explained by the more frequent occurrence of lacerations at this point The posterior wall of the vagina is more commonly attacked than the anterior wall, which is probably due to the fact that it is bathed with the discharges from the uterus The exudation may, however, appear on entirely healthy portions of mucous membrane, which have not been the seat of laceration The surrounding parts are more or less swollen The connective tissue of the pelvis is infiltrated with serous fluid, and is sometimes the seat of a dusky erythema, consisting of minute spots, disappearing on pressure and not elevated In one case petechiæ as large as hempseed existed These were not affected by pressure The same patient later developed erysipelas

In five cases ending fatally autopsies were made The uterus was much enlarged, sometimes reaching almost to the umbilicus two weeks after labor The cervix may be torn, showing diphtheritic patches or a thin gray film In two cases, large portions of the cervix sloughed and the vagina became gangrenous The tissue of the uterus is friable, and may be almost diffluent The diphtheritic exudation may effect the fallopian tubes In some cases, the muscular tissue of the uterus is scooped out as in dissecting typhus, of which I have described several cases This occured in four of the cases of puerperal diphtheria In one case, the mass thrown off was four inches long, two inches wide and one inch thick These masses have a pear shape, their outer surface is of a gray color, and the inner surface flesh color They are perforated with a number of holes leading into uterine sinuses Under the microscope, these masses are shown to consist of smooth muscular fibre in a more or less advanced state of fatty degeneration The connective tissue is increased Lesions were also found in other organs and occasionally in the joints Difficult labors and a previous weakened condition of the patient predispose to the development of the condition The real cause of the disease is, however, an infection from the outside I have never been able to convince myself that the poison passes from one patient to another, but it seems to be in the air of the ward When a ward has been fumigated with sulphurous acid, there would not be a seriously sick patient for weeks That the poison comes from the outside is also shown, by the fact, that when the prophylactic treatment to which I shall refer is adopted, the disease does not develop

The first symptom which shows a deviation from a normal course, is usually the occurrence of fever, which mostly appears from two to four days after delivery Sometimes there will be a chill or chilly feeling The temperature rises gradually as a rule It has ranged from 100 6° to 107°, the average being from 102° to 104° Anorexia, vomiting, coated tongue and diarrhœa, witness the disturbance of the gastro intestinal canal The patient complains of pain in the epigastrium and one or both groins, sometimes extending into the legs Examination shows the uterus larger than it should be, and quite tender Tenderness is often also found in the groins and some swelling may also be observed The lochial discharge is often scanty and offensive, but in some cases it has been normal In those cases in which there was expulsion of the tissues of the uterus, there has been a purulent discharge until expulsion has been accomplished The diphtheritic patch general appears from three to seven days after delivery It continues to spread for several days and usually stops in from three to eight days after the beginning of treatment In one case the diphtheritic patches also appeared on the tongue, indicating that the disease is identical with the ordinary form of diphtheria attacking the throat The irritation of the nervous system is evidenced by headache, stupor and delirium There is alteration of the renal secretion, and sometimes there is painful micturition Three patients had albuminuria In two cases jaundice bore testimony to the perverted condition of the blood The sweet breath and profuse sweats of septicæmia were observed twice. One patient developed painful arthritis of the elbow joint. When the diphtheritic process was once arrested, the patients recovered rapidly. There is scarcely any difficulty in the diagnosis. When the injections of bichloride of mercury are employed, they cause a yellow discoloration of abraded surfaces. This is strictly limited to the abraded surface, and is unaccompanied with general symptoms. When the chloride of zinc is applied to the affected surface in the treatment of the disease, a slough is caused, having the color of the deposit and the physician is sometimes at a loss to determine whether or not the disease is spreading. The point is decided by noting where the application is made, and by observing the edge of the deposit. The diphtheritic deposit has a scalloped outline while the outline of the slough is smooth.

As to prognosis five out of twenty nine cases died, giving a mortality of 17.2 per cent. Another of the cases might have survived, for she lived thirty-two days, and died from rupture of the uterus while an assistant was using an intra uterine injection. The post-mortem showed the walls of the uterus to be extremly thin. The duration of the cases ending recovery, is usually about two weeks. In those cases in which a portion of the uterus is scooped out, the organ is left in a weakened condition, which in future pregnancies may predispose to rupture of the uterus.

In the way of prophylaxis, it is recommended to limit the vaginal examination during labor as much as possible. The finger or hand should not be introduced into the uterus unless absolutely necessary. The delivery should be so accomplished as to avoid as much as possible wounding of the genital canal. Instruments should be used with care. The most important element in the prophylaxis is the use of bichloride of mercury as an antiseptic. Everthing coming in contact with the patient should be washed in the solution of corrosive sublimate, one to two thousand. After this treatment was introduced only one case appeared in six months, and that was due to carelessness on the part of a resident who delivered a woman immediately after removing a macerated fœtus from another patient. After the disease appears, the treatment must be energetic. The only treatment that has given me satisfaction, is that with chloride of zinc. The affected parts are touched with a solution consisting of equal parts of chloride of zinc and distilled water. This is rather painful and an anæsthetic may be used. A warm solution of corrosive sublimate, one to two thousand is used for intra-uterine injection where this is required, and subsequently a suppository of fifteen grains of iodoform is introduced. If this is done the process need not be repeated more than once in the twenty-four hours. The vagina is to be douched every three hours. The parts should be examined every day, and if the process is not arrested, the chloride of zinc is to be repeated. If the disease be limited to the vagina and vulva, *the intra-uterine treatment* is omitted. Extract of ergot is also given, with the hope of causing contraction of the uterus. Morphia, quinia and digitalis are used as indicated. High temperature is combated with sponge bathing, salicylic acid, and if necessary, the rubber coil and ice water. Carbolic acid is also given, sometimes combined with the compound tincture of iodine. If the temperature be not very high, warm poultices are preferred to the ice bag and coil. Where there is diarrhœa, warm poultices are also considered preferable.

Samples of the occlusion bandage to be used after labor, were exhibited. They consisted of a pad of absorbent cotton wet with the corrosive sublimate solution, over this a piece of oiled muslin or rubber cloth, and over all, a piece of absorbent cotton and a piece of muslin or flannel to attach it to the binder.

Dr. Wm. T. Lusk, of New York, said that ten years ago he had one hundred and fifty cases of this affection under his care. Of this number twenty eight died. The epidemic could be traced to a patient brought into the hospital after a long labor. She was suffering at the time from syphilitic ulcers of the vulva, which was excessively inflamed. He delivered with forceps and the inflamed perineum tore. Soon after this the diphtheritic deposit appeared, and the whole ward was infected. The first cases were the result of transference from the patient, for the question of contagion was not recognized as it is now. After a time great care was taken to avoid every possible source of contact, but the disease continued, and could be only explained on the supposition that the air of the ward was filled with germs. In his first cases the treatment consisted in the application of equal parts of the solution of the persulphate of iron and compound tincture of iodine. The disease usually began with a certain amount of mildness, and gradually became more severe. Of the first twelve cases only two died, while in the second set of twelve cases only two recovered. In the progress of the epidemic the entire system seemed to be affected, even before the advent of labor. Since the adoption of Dr. Garrigue's suggestion with reference to the use of corrosive sublimate injections, he had not seen a case of puerperal diphtheria in the course of three and a half years. He had neither had a death from fever nor any cases of fever, the old fashioned milk fever even being absent.

Dr. H. P. C. Wilson, of Baltimore, remarked that he had always been adverse to using bandages of any kind after delivery, preferring to have the napkins placed under the patient so as not to obstruct the free flow of the discharge and to use frequent washing of the vagina with antiseptic solutions.

Dr. Richardson, of Boston, said that during the years 1882 and 1883 he had treated many cases of puerperal fever, but with ill success until the appearance of Dr. Garrigue's paper. After adopting the use of the pad and the corrosive sublimate solution for the hands of the attendants and nurses, the hospital has been almost entirely free from the disease. There had been no death since he adopted these measures, and there has been only one or two cases which had caused any anxiety. He agreed entirely with what the reader of the paper had said. He had found that even so weak a solution of corrosive sublimate as one to five thousand will sometimes cause salivation. Where this occurs he uses iodoform, as has been suggested.

Dr. **Burns**, of Brooklyn, inquired of Dr. Garrigues whether he had noticed any vaginal deformity following this affection? He had seen one case in which such deformity occurred. A lady, after her fifth confinement, was taken with tenderness, fever, and so on, and on the fourteenth day had a copious hæmorrhage. On examination, he found the entire posterior and outer surface of the vagina almost completely detached. Acetic acid was applied and the bleeding checked. An examination after the healing of the parts had taken place, showed the vagina much shortened and narrowed in its upper part, the cervix being obliterated. The anterior portion of the cervix was in contact with the recto vaginal septum. He told the patient, in reply to her inquiry, that it was not likely that she would conceive. His prediction turned out to be false. In the following confinement, she was in labor twenty four hours before there was the slightest appearance of an opening through which a fœtus could escape. There was bulging of the presenting portion of the uterus, and into this he made an incision and the child was delivered readily, the patient making a rapid recovery.

Dr. **Garrigues** thought that the endorsement of Drs. Lusk and Richardson would be sufficient to induce others to try the occlusion pads. During the year preceding the introduction of the new method of treatment, the mortality was nearly seven per cent. During the next, with the new method of treatment, the mortality was one and a half per cent. During the second year, it was less than three fourths of one per cent. In the institution in which these observations were made there are a number of disturbing elements, one of the most important being its connection with a large general hospital. In this new method of treatment the antiseptics are applied only to the outside in normal cases. Only in abnormal cases are vaginal and intra-uterine injections employed. In reply to the objection of Dr. Wilson, he said that the pads used are absorbent. In hospital practice the pad is changed every four hours. In private practice, three times a day is sufficient. He had never seen salivation from the use of corrosive chloride. The nearest approach to it had been fœtid breath and diarrhœa. He had only seen two of the cases subsequently to recovery when in labor. In one there was great shortening and narrowing, but during pregnancy there was softening, and the labor was quite easy. The second patient is pregnant, and the vagina appears to be in good condition.

In reply to a question, the speaker stated that the use of the pads prevented all offensive odor.

(*To be concluded.*)

DOMESTIC CORRESPONDENCE

NEW YORK LETTER

(FROM OUR OWN CORRESPONDENT.)

Dr. Jacobi's Address before the Academy of Medicine—Obscure Cases of Weak Heart—Death during an Epileptic Fit.

The address with which Dr. Jacobi, the President, greeted the Fellows of the Academy of Medicine when they reassembled for the first time after the summer vacation, on the evening of October 1, while very excellent in many respects, was marred by an expression of sentiment in regard to the "Code question," which was, to say the least, in very questionable taste, and which could not but prove offensive to a considerable portion of his hearers. Quite a large part of the address was devoted to a glorification of the action of the New York State Medical Society in repudiating the National Code, against which the adherents of the latter so long protested and so gallantly did battle, and just why such a firebrand should have been introduced, like a thunderclap out of a clear sky, at the very beginning of the scientific work of the Academy for another year, it is not a little difficult to understand. This body is made up of old and new Code men alike, but the action of the latter in the past has deprived it of the support of many of its former devoted friends, so that quite a number of those who used to be most active in its work, and who are by far the most liberal benefactors which it ever had, are now never seen within its walls. The unwise proceeding of Dr. Jacobi cannot but have the effect of still further alienating the adherents of the National Code, and thus proving directly prejudicial to the best interests of the Academy.

Having referred to the recent explanatory declaration of the American Medical Association in regard to certain clauses of the Code of Ethics at the New Orleans meeting, he went on to say: "The expressions of opinion in regard to the wholesome effect of the New Orleans declaration have been very numerous. I am in possession of several letters containing remarks full of satisfaction and hope. A gentleman well and deservedly known in the profession of both hemispheres, and markedly so with us for his allegiance to the Code of Ethics of the American Medical Association, gave enthusiastic expression to his delight over the satisfaction that declaration must give, and to the hope that the New York Academy of Medicine would give a public utterance in that direction. That would 'immediately settle all difficulty about the Code, and at once restore peace and harmony in the profession.' I had to tell him that the Academy of Medicine excluded all politics, ethical and otherwise, from its discussions, and that the only societies who could act in the matter were the medical societies of the county and of the State of New York. There the matter then rested, for I believe I was right in excluding it from any consideration in our midst." Yet in the face of this assertion, why in the name of common sense does he proceed to drag in the subject by the neck and ears? Apparently the only reason is that the "New Code" may flap its little freshly-fledged wings in jubilation over the "unexpected success on the part of the profession (?) of the State of New York in harmonizing a large majority of the medical men of the United States." "For the Medical Society of the State of New York," he says, "it must be a source of intense gratification to be convinced by the passing of that declaration, that a few years have been sufficient to so change public opinion as to oblige even the American Medical Association to recognize the justness of most of the New York proceedings."

Dr. Jacobi maintains that the clause of the New Code which states that "members of the Medical Society of the State of New York, and of the medical societies in affiliation therewith, may meet in consultation legally qualified practitioners of medicine," is practically identical with the explanatory declaration passed at New Orleans, which he believes "endorses the New York Society and the spirit of the New Code," but if he or any other of the New Code party will make the trial of seeking admission to the American Medical Association as a delegate, offering his allegiance to the New York Code as a substitute for subscription to that of the Association, he will find out that there is a *decided* difference between the two. The American Medical Association stands today where it has always stood. If black is the same as white, then the expression of the New York Code, "may meet in consultation," is the same as that of the explanatory declaration of New Orleans: "No circumstances can make it necessary or proper to enter into formal professional consultations with those who have voluntarily disconnected themselves from the regular medical profession." The cry of "humanity" was only the subterfuge under which the concocters of the "New Code" disguised their audacious schemes. Practically, the point has always been thoroughly well understood by the profession which has now been formally interpreted in the following words of the explanatory declaration: "*Resolved*, That there is no provision in the National Code of Medical Ethics in any way inconsistent with the broadest dictates of humanity, and that the article of the Code which relates to consultations cannot be correctly interpreted as interdicting, under any circumstances, the rendering of professional services whenever there is pressing or immediate need of them. On the contrary, to meet the emergencies caused by disease or accident, and to give a helping hand to the distressed without unnecessary delay, is a duty fully enjoined on every member of the profession, both by the letter and the spirit of the entire Code." If the New York Code and that of the Association, with this official interpretation, mean the same thing, why do not the New Code men renew their allegiance to the latter? Alas, it is not the "emergency-consultations" that they pine for, but those in cold blood which will enable them, particularly if they are specialists, to pocket a comfortable portion of the filthy lucre of the guileless homœopath's affluent patient. It may be true that the homœopaths of to day are very different from those of forty years ago, and that they no longer believe in the principles laid down by Hahnemann, but if, as Dr. Jacobi says, "they now claim that their practice is not based on an exclusive dogma," why do they not drop the empty name, and call themselves simply physicians, in accordance with the broad, catholic spirit of the regular profession? Alas, here again comes in the question of the loaves and fishes! In every community there is a large class with more money than brains, who are never content unless they are being humbugged, and hence the name is retained simply as a device to secure trade. Truly a noble end in men of a learned profession! Let them discard an appellation which implies, at all events, an exclusive dogma, and the American Medical Association will be only too glad to extend to every one of them who is a properly educated physician the right hand of fellowship.

The first part of Dr. Jacobi's address, which was devoted to a consideration of the work of the Committee for Collective Investigation of Disease of the International Medical Congress of 1884, was in every way admirable, and he clearly set forth the difficulties to be encountered and the advantages to be gained in prosecuting labors of this kind.

The scientific paper of the evening, by Dr. R. Van Santvoord, which bore the title, "Obscure Cases of Weak Heart," was devoted to a plea, justified by the narration of several cases of interest, for a more careful study of cardiac weakness and its causes on the part of the general practitioner. The discussion which followed was participated in by Drs. E. Darwin Hudson, Andrew H. Smith, Leonard Weber, John P. Garrish and others. Before adjourning, a clinical thermometer formerly belonging to the late Dr. John W. Francis, of this city, sent by his son, Dr. Francis, of Newport, R. I., was presented to the Academy. It was stated that, so far as could be ascertained, the instrument was made about the year 1830, and Dr. Jacobi remarked that if this claim could be substantiated, Dr. Francis would be entitled to a priority in the use of the thermometer of which any one might well be proud.

A very curious accident recently caused the death of a young man in this city. He was subject to epileptic fits, and always slept with a chair backed up to his bed, to prevent his falling out in case of an attack. On Sunday night last he had a fit, and, falling out of bed, notwithstanding the presence of the chair, his chin struck upon its seat, and his body remaining in this position, he strangled to death before recovering consciousness.

P. B. P.

New York, Oct. 2, 1885.

THE AXIS-TRACTION FORCEPS—A CORRECTION.

To THE EDITOR OF THE JOURNAL:

Dear Sir:—1. In an editorial which appeared in your JOURNAL of Sept. 26, under the title "Dr. Felsenreich's Modification of Alexander Simpson's Axis-Traction Forceps," you state that in my article, "An Obstetric Forceps," published in the September number of the *American Journal of Obstetrics*, my "allusion to the fact" that Dr. Felsenreich, of Vienna, had previously designed all the good qualities of the instrument therein described, "is disingenuous."

2. You further state that "Dr. Felsenreich's instrument is identical with the forceps described by Dr. Neale, with the exception of the thumb screw," and that "Dr. Neale is entitled to the honor of substituting the compression thumb screw at the ends of the handles, for the more useful contrivance of the Felsenreich and Alexander Simpson instrument," in

which the compression screw "is located on the middle third of the superior surface of the handles"

My reply is as follows

1 I purposely refrained from attaching my name to the instrument in dispute I did not call it Neale's forceps, but on the contrary I plainly stated in text, and demonstrated by diagrams, that it is "the practically unaltered Simpson forceps," that Tarnier's "principle of axis-traction is the most important modification of the forceps that has been devised within the past quarter of a century," and that this axis traction is applied to this forceps by means of the button-hole joint which "was first shown to me by Dr Felsenreich, first assistant to Prof Carl Braun, of the Vienna clinic, in 1882," and hence "the idea of the construction" of the forceps "is not *entirely* original with me"

2 I was and am of the opinion (which I grant may be erroneous) that Dr Felsenreich attached the axis traction rods to Braun's forceps, which is considerably different from the Sir J Y Simpson or the Alexander Simpson instrument, but be this as it may, the compression thumb screw in the model of Dr Felsenreich's forceps, I saw in Vienna, in 1882, was Braun's thumb screw (the same as in Braun's cranioclast), attached to the ends of the handles, permanently effecting their shape, and in my humble opinion, their usefulness If there be a later model of Dr Felsenreich's forceps, of which I am ignorant, in which the thumb screw, as you say, "is located on the middle third of the superior surface of the handles, as in the Alexander Simpson instrument" (originally in Tarnier's), I still maintain that even this arrangement permanently affects the shape of the handles and decidedly interferes with grasping them in the hand, as is done when the forceps is used as a simple Simpson, and not as a Tarnier Indeed, this is the very practical objection my entirely detachable thumb screw is designed to overcome, and it does it effectually

3 I have also shortened the shoulder and made the last knob on the hard rubber handles of the disputed forceps more prominent than in Braun's or Felsenreich's, or Alexander Simpson's, in order to afford a better purchase to the grasping hand, or a firmer grip

4 I am of the opinion, not positive, however, that the cross bar handle to the traction rods of Dr Felsenreich's instrument was attached after a method different from the Tarnier model, whereas I adopted this old style with certain slight yet practical alterations, to wit the movable metallic ring fixed to the handle is beveled, not flat, and fits into correspondingly beveled spring shoulders in the ends of the traction rods, which shoulders are two in number, and not one, as in Tarnier's forceps These alterations, without in the least complicating the instrument, render it practically impossible to pull the handle off the rods (unless the springs are purposely compressed), which can not be said of the original Tarnier pattern

5 There is also a fixation bar concealed in the handle to the traction rods, which may be used at option to fix the swivel joint, thereby rendering the entire forceps rigid, when "rotation may be governed (so far as lies in the power of the operator with any instrument) without touching the handles of the introduced blades, or in any way interfering with their action as an indicating needle," Consider this an improvement or not, I have certainly never heard of or seen it in any other forceps

The first blades I adopted were fashioned after the Sir J Y Simpson pattern after shortening the fenestrae and thickening the metal about the button-hole perforation Fearing, however, that these blades might feather or slip, I quickly substituted the Alexander Simpson model, which is of altogether stronger build and greater cephalic and pelvic curves, and this is the only form of the disputed instrument now sold in this city I was under the opinion, which I candidly acknowledge may be erroneous, that Dr Felsenreich adopted Braun's blades, but whether he did or not it matters very little, for I believe Alexander Simpson was the first to attach Tarnier's traction rods to his own forceps, and hence to him is justly due the honor of this part of the modification

1 The shape of the handles, 2 the neat compression thumb screw entirely removable without altering in the least the shape or utility of the handles, 3 the firmer attachment of the handle to the traction rods, 4 the fixation bar concealed in that handle, to be used or not, at option, to aid rotation, are all that I claim If concise nomenclature be desirable you may call it the Tarnier-Alexander Simpson-Felsenreich Neale (?) forceps, but I would suggest the simpler name of "Combination Forceps"

Respectfully, L E Neale, M D

Baltimore, October 2d, 1885

[Dr Neale admits that the forceps, described by him in the September number, current year, of the *American Journal of Obstetrics*, is merely a modification of Felsenreich's adaptation of Alexander Simpson's axis traction forceps He did not mention this fact, however, in the paper to which we have referred We are of the opinion that this omission, to say the least, was disingenuous We experience difficulty in believing that such an acute and attentive student, as Dr Neale was in Vienna, could forget that Dr Felsenreich substituted the button-hole for the hinge-joint in the Alexander Simpson instrument Dr Felsenreich repeatedly called the attention of all the gentlemen, who studied with him, to the characters of the modified instrument The forceps, to which the axis traction rods were attached, was the *Wiener Schulzange*, the original model of the Sir James Y Simpson instrument Carl Braun's forceps has been for years a practically obsolete instrument It never attained to great popularity, and is not used in the Vienna lying-in clinics, except, on rare occasions, by the inventor himself

' Braun's forceps is simply the Sir James Y Simpson instrument, with the fenestrae obliterated and completely covered with hard rubber It would be difficult, if not impossible, to attach axis traction rods to such an instrument

As to the value of Dr Neale's additions and modifications, opinions differ In our judgment, where these additions do not positively impair the usefulness of the instrument, they are utterly trivial

Finally, we have entered into communication with Dr Felsenreich on the subject of Dr Neale's paper, and hope, within eight weeks, to publish his own comments Ed]

ASSOCIATION ITEMS

INFORMATION OF IMPORTANCE TO ALL MEMBERS OF THE AMERICAN MEDICAL ASSOCIATION

To the Editor of the Journal

Dear Sir —The notices which I send to members for payment of their annual dues bring to me so many inquiries as to the rules and customs of the Association, that I have deemed it advisable to call the attention of all your readers, as briefly as possible, to their responsibilities to the Association, viewed from my standpoint as Treasurer

Membership —Every one who attends an annual meeting of the Association as a delegate pays at that time five dollars, and thenceforward becomes a Permanent Member He continues as such as long as he remains in good standing in the body from which he was originally sent as a delegate As a Permanent Member, he must pay *Five Dollars Annually*, when notified by the Treasurer, whether he attends the meetings of the Association or not Payment of annual dues entitles him to receive the weekly Journal of the Association for one year

Members by Application are such as have not become Permanent Members in the manner above indicated, but apply to the Treasurer for membership, forwarding at the same time to him five dollars and the certificate of the President and Secretary of their State or local society, that they are in good standing in such society They pay five dollars annually thereafter, when notified by the Treasurer Members by application can join the Association at any time, and they receive regularly the weekly Journal

When Dues are Payable —The annual dues from Permanent Members are payable to the Treasurer at the time of the annual meeting of the Association, or immediately thereafter The payment entitles the member to receive the Journal for one year from the following July Payment for 1885, for example, entitles the member to the Journal from July, 1885, to June, 1886, inclusive

As some of the members have not yet forwarded to the Treasurer their dues for 1885, they are urgently requested to do so at an early day Having entered upon another year of membership, they are morally and legally responsible to the Association for the payment of their annual dues, having already received for three months of the new year—1885—the Journal of the Association

Subscriptions to the Journal, from those who are not members of the Association, should be forwarded to the office of publication, 65 Randolph Street, Chicago, and not to the Treasurer, but *all payments of annual dues must be forwarded to the Treasurer, Lock Box 1274, Philadelphia*

Deaths —When a member of the Association, who is in regular receipt of the Journal, dies, his family or other representatives are requested to inform the Treasurer at once of the fact

Payment of Dues for Previous Years —As a few members of the Association are still in arrears for payment of dues for 1883 and 1884, they are requested to forward at once to the Treasurer the amounts for which they are indebted to the Association

Transactions of the Association —These annual volumes, thirty-three in number, to 1882 inclusive, may still be obtained, with few exceptions, from the Treasurer, at reduced prices The Index to these volumes will be forwarded on receipt of *One Dollar* An opportunity is thus afforded to complete sets of these valuable publications, or to obtain important papers and works which are daily becoming scarce Yours respectfully,

Richard J Dunglison, M D , *Treasurer*

Sept 25, 1885 Lock Box 1274, Philadelphia, Pa

MISCELLANEOUS

American Academy of Medicine —The next annual meeting of this organization will be held in New York City, commencing on October 28, 1885 Dr A L Gihon, U S N , is President, and Dr Richard J Dunglison, of Philadelphia, Secretary

Died —Dr John L Atlee, of Lancaster, Penn , died at his residence on October 1, 1885, aged a little more than 85 years Dr Atlee was an ex-President of the American Medical Association, an eminent physician and surgeon, whose practice had extended over the unusual period of 65 years He was not only eminent in the profession, but equally so as a citizen in all the relations of human society

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY, FROM OCTOBER 3 1885 TO OCTOBER 9 1885

Capt J H Bartholf, Asst Surgeon, ordered from Ft Ringgold to Ft McIntosh, Tex , for duty as post surgeon (S O 125, Dept Tex , Sept 28, 1885)

Capt Daniel Weise, Asst Surgeon, to be relieved from duty at Camp at Rock Springs, Wyo , and to return to his proper station, Fort Fred Steele, Wyo (S O 99, Dept Platte, Oct 1, 1885)

Capt Victor Biart, Asst Surgeon, sick leave of absence further extended six months, on surgeon's certificate of disability (S O 227, A G O , Oct 3, 1885)

First Lieut G E Bushnell, Asst Surgeon, granted leave of absence for one month (S O 215, Dept East, Oct 6, 1885)

First Lieut Wm Stephenson, Asst Surgeon, relieved from duty at Ft Niobrara, Neb , and ordered for duty at Camp at Rock Springs, Wyo (S O 99, Dept Platte Oct 1, 1885)

First Lieut A R Chapin, Asst Surgeon, leave of absence extended one month (S O 230, A G O , Oct 7, 1885)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING OCTOBER 10 1885

Bright, George A , Surgeon, to U S Str "*Brooklyn*"

Fitts, Henry B , Asst Surgeon, to Naval Hospital, New York

Hall, John R , P A Surgeon, detached from Naval Hospital, Mare Island, Cal , and ordered to the "Hartford"

Swan, Robert, P A Surgeon, detached from Naval Hospital, New York, and ordered to the "Brooklyn"

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol V CHICAGO, OCTOBER 24, 1885 No 17

ORIGINAL ARTICLES

NOTES IN SURGICAL GYNÆCOLOGY[1]

BY HORATIO R BIGELOW, M D
OF WASHINGTON, D C

MINOR GYNÆCOLOGY

I do not desire to embarrass the members of this Section with any labored discussion of literature, statistics, or pathology, but simply to state as briefly as may be such suggestions as observation, study and experience have shown me to be of importance

Sutures—Carbolized silk, mutton-gut, carbolized and hardened in alcohol, whale gut and kangaroo tendon are rapidly assuming prominence The wire suture is dying, and after a long life of usefulness we see simply that *it*, too, must follow the law of the survival of the fittest, and give place to better methods The silver wire suture was not an ideal surgical invention It was ever an irritant, and always necessitated after interference of more or less annoyance In Emmet's operation the gut answers every purpose, and after seeing several operations attended with the best results following upon its use, and that of the continuous stitch, I am strongly in favor of such procedure in every instance This manner of stitching is the rule in similar conditions in other parts of the body, and there seems to be no reason why the cervix should be excluded from the category Mutton-gut is very strong and easily absorbed *Aseptic silk*, in lacerations of the perineum and in gynæcological plastic surgery, generally subserves a most admirable purpose I have witnessed a very large number of these cases, and have assisted in many of them, but I have never seen the wire used during my residence in Germany Silk is used exclusively in perineal operations, and is much more comfortable for the patient *Iodoform collodion* is used to paint over the line of stitching in perineal operations, and is of especial advantage when it becomes impossible to use antiseptic dressings

The Curette—The objections urged against the intelligent use of this instrument lose force in face of statistics If the uterus be first irrigated with carbolized water, then curetted, then injected with tinct iodine or liq ferri, and then again irrigated, there will be no bad results As a diagnostic and therapeutical agent it is highly valuable It accomplishes in one sitting, and with little risk, what nothing else can This also may be said of uterine injections of iodine and liq ferri—when proper precautions are used they should not be followed with colic I have personally seen over one hundred such injections, either with or without curetting, and in no instance was there any bad after result On the contrary the patients were immediately and appreciably relieved Dr Landon has made over 500 injections with only one case of well-marked colic, and has witnessed over 1500 such injections, with one death, at the clinics of Prof Schrœder and Gusserow, and at Dr Martin's Poli klinite such injections and curettings are made daily upon several different women If the curette will not enter, dilate at once with graded dilators, and then curette But do not use the sponge tent for such a purpose, time is lost, nothing is gained, and much risk of septic poisoning is incurred In pathological conditions of the mucous membrane of the uterus, with the alarming train of symptoms so characteristic of endometritis, the hæmorrhage is at once arrested, and the membrane of the uterus, stripped of the little polypoid growths, is allowed to regain its normal condition Irrigation and caustics will have no effect here As to treatment of endometritis diffusa, or fungosa, or glandular hypertrophic, or glandular hyperplastic, or interstitial endometris, the curette is the only thing that will achieve any good result And it does this by reason of the changes it sets up in the uterine mucous membrane

Alexander's Treatment of Prolapsus Uteri—Shortening of the round ligaments for the cure of a prolapsed uterus has not found much favor on the Continent, and failed entirely in the accomplishment of its purpose in the only instance that I knew of in which it was resorted to in Germany It might possibly be of some avail in backward displacements of the uterus, but I cannot see how it can be of any service in prolapsus, even though the uterus may depend, as Dr Alexander claims, upon the resiliency of the surrounding tissues for its support This theory is hardly tenable in view of the pathological and physiological processes in both the bladder and intestines, which necessitate a constant change in the amount and direction of the pressure upon the uterus, so that the support is at no time the same, and at some period may be absent altogether Yet all this may and does happen without a consequent prolapsus uteri

ABDOMINAL SURGERY

I still continue my firm belief in and adherence to strict antiseptic detail I regard such precautions as a *sine qua non* of success Were means and opportunity to come into harmonious conjunction, my procedure in all laparotomies would be somewhat as follows A well lighted, well warmed room, with sanded walls and stone floor, in which the spray had been playing for some hours previous to the operation, a set of instruments used only for abdominal surgery, porcelain basins, no sponges, all the water used to be previously boiled, the spray to be in action during the entire operation, two assistants (one having charge of the anæsthetic and the other being opposite the operator), and one or two good nurses, to handle the basins, instruments, etc The patient should have a carbolized bath the night before the operation, and the hair should be shaved from the pubes An operating table of galvanized iron, made in sections, the section under the lumbar region of the patient being so arranged that it can be dropped down, so that the bandages can be passed around the body without disturbing the patient (Martin's table) It can be made so low that the operator can sit between the patient's legs, and thus be very comfortable, or high enough for him to stand at the left side The temperature of the room during the operation I would have at 80°–82° F The abdomen of the woman should be well washed with soap and water while she is being anæsthetised, and then rubbed off with mercuric bichloride solution 1-2500 or 1-3000 Flannel wrung out of hot water, or hot bottles should be under the arms and along the body, the extremities and trunk being thoroughly protected with flannel All instruments and ligatures should be kept in carbolized water, and all the assistants should be *aseptic* in the strictest sense of the word A few visitors only could be allowed, and it should be equally necessary for them to be aseptic The door should not be opened after the operation had begun All cysts should be evacuated with a trocar, because it is more cleanly than the simple puncture, which allows the contents to dribble over the patient The cavity being exposed, I would protect it from contamination by cloths wrung out of hot water (antiseptic) These keep the bowels in place, and can be packed nicely around the stump, or else I might use Marcy's rubber sheet, which completes most satisfactorily the toilet of the peritoneum

---

[1] Read in the Section on Obstetrics and Gynæcology at the Thirty Sixth Annual Meeting of the American Medical Association

Sepsis is of course the hydra-headed monster against which the operator is called upon to exercise most zealous guard and watch I become more and more impressed also with the belief that a sudden reduction of temperature may exercise a most pernicious influence, although that opinion is not shared be gynæcologists in Berlin I cannot believe that a large mass may be removed from the abdomen without withdrawing a certain amount of heat developed by its presence, and I cannot believe that the central nervous system will not appreciate the difference It is for this reason that I would anticipate the change by supplying external heat to the patient This being provided for, every energy is directed toward the prevention of sepsis Until some better measure be devised, or until the opponents of antiseptics shall be able to show that the present scrupulousness of German operators is without any foundation as a scientific process, I shall continue to believe in its great name Nay, more I shall believe that the greatest measure of success will be his who exercises the most rigid antiseptic precautions The stump, in simple cases, may be sewed through and through with the cobbler's stitch, or several interrupted stitches of double thread, passed through the substance at short distances, may be used, or the the pedicle may be tied in halves and dropped The pedicle can also be tied in halves, and the flaps above the stitching may be brought over and sewn together above the first, so as to give a double protection I have already had my say in regard to the intra-peritoneal treatment of the pedicle, and expressed my preference therefor As yet I have seen no reason why I should change It is an easier operation, it does not require so much time as the extra-peritoneal method, it is much neater, and to my mind a much better surgical procedure Formerly there was a question of hæmorrhage Now-a days, this is a factor of small importance, since experience and intelligent advance has taught us how to control it The elastic ligature was a happy device, and with it one can operate safely and without fear

Shock—rather a vague and uncertain term, has grown to be synonymous with want of facility in the operator, by which the operation has been unduly prolonged, provided always that the temperature of the body has been kept up to a proper standard—for I fancy that in former days many cases of so called shock may have been deaths from a lowering of the temperature

By the intra peritoneal method drainage of the whole peritoneal cavity may not be possible, and of course the incubus of sepsis will hover around like a black cloud for several days In view of this, Dr Martin's article on the treatment of the stump after myomotomy (*Berl klin Wochenschr* , 1885, No 3), will be read with much interest In certain cases, especially those in which he thinks that the absorbent power of the peritoneum may be interfered with, he makes use of prophylactic drainage Without this drainage he had thirty-one cases, with a mortality of 35 5 per cent , with drainage he had twenty-nine cases, with a mortality of 24 2 per cent To this he adds five cases of supra vaginal amputation of the uterus, one being treated without drainage and four with drainage, making thirty-two cases without drainage, the mortality being 34 per cent ,—of which 21 9 per cent were from *sepsis* Thirty-three cases were treated with drainage, with a mortality of 24 per cent , of which 12 per cent died from *sepsis* After gastro-hysterectomies he drains from Douglas's cul de-sac through the vagina The treatment of the stump in the intra-peritoneal gastro-hysterectomies is a matter of importance and interest It seems to me that this is best done by utilizing the peritoneum as a flap, as described by Martin in his book on the Pathology and Treatment of the Diseases of Women, and by making sure, before returning the stump, that there is no oozing These two questions—the arrangement of the stump and prophylactic drainage—ought to be provocative of discussion, since they go to make up the sum and substance of this plan of treatment. Hofmeier's recently published monograph on Prof. Schrœder's 100 laparotomies (the number now is considerably more than that), may be studied with advantage.

Extirpation of the Cancerous Uterus through the Vagina.—Operating after his own plan, I have seen Dr. Martin make this extirpation in forty minutes without losing any blood—or at least without losing but very little. The operation is, however, a difficult one, and would be impossible in a constricted vagina, or if the uterus were very much enlarged. It is not easy to get the finger up through the posterior opening at the vaginal insertion, and unite the ligamentum lata with the peritoneum and vaginal wall, and even in the first stitches which unite the peritoneum with the posterior vaginal arch, the operator may fail, as others have done, to include the peritoneum. It is well to cut with one sweep of the scalpel directly into the cul-de-sac of Douglas, and then unite these cut surfaces—peritoneum and vagina—before going any further. The stitches must be drawn as *tightly as possible*, and Dr. Martin is in the habit of using about four of them. A double thread is used with the lig. lata, and the needle should come out about one ctm. from where it went in. This requires nice manipulation, and the index finger must be delicate in its sense of touch. The great merit of this operation is that it is rapidly done, and with the loss of the smallest possible amount of blood.

After-Treatment.—In plastic operations upon the vagina or upon the cervix, if aseptic silk be used, there is no necessity for further interference. In lacerations of the perineum, the stitches can be removed in a week. The vagina can be packed with iodoform gauze (gauze well soaked in iodoform and glycerine), the parts having been powdered with iodoform immediately after the operation. When changing the dressings, it is a good plan to irrigate thoroughly with carbolized water. When the vagina is not tamponed, warm antiseptic injections should be kept up daily. This should be carefully done, so that the nozzle of the syringe will not irritate the cervix, and the reservoir and receiver should be so arranged that the woman can lie in bed with the hips elevated, and allow the injection to go on for half an hour at a time. After amputations of the cervix, there is often a good deal of posterior inflammation, which resists treatment for a long time and is wearing upon the patient. This yields in time to *patience* and *hot water* injections. The bowels must be kept soluble. Constipation, a prevalent complaint among women, keeps up the inflammation, and each passage is attended with severe pain. After laparotomies, careful nursing and judicious feeding are of primary importance. Morphia should be given at first as occasion may require, and the bladder should be emptied by the nurse until the woman can safely do so herself. When indicated, an ice-bladder over the abdomen is frequently called into requisition in Germany. For the first few days, milk, wine and water and bouillon may be given—but nothing should be forced upon the patient for some hours after the operation. Mellin's Food subserves a useful purpose, as it furnishes *heat*, and can be retained by the most delicate stomach. From the fourth to the seventh day, a little meat may be added. The drainage tube may be removed upon the third or fourth day. All dressings should be renewed under the fullest antiseptic precautions.

Abdominal surgery has not as yet risen to the importance of a *distinct* branch in Germany. Professors Gusserow and Schrœder are professors of both obstetrics and gynecology, and perform all the operations coming under both heads. With proper precautions, I cannot see why a man who makes an "Emmet," or an amputation of the cervix, or who delivers a woman, should not also do a laparotomy. If he change his clothing and take a bath, as every one must do who attends a laparotomy in Berlin, and if he has a distinct set of instruments for his abdominal work, there can be little danger arising from his having come from a case of labor. Schrœder and Martin have done splendid work, and yet they are busy at all hours of the day in the various departments of obstetrics and gynecology. Besides a perfect technique, they are both firm believers in antisepsis. Gusserow in diagnosis and pathology, Schrœder as a didactic lecturer, and Martin as an operator form a notable triumvirate.

THE RELATION OF MIND TO MATTER[1]

BY AMOS SAWYER, M.D.,

OF HILLSBORO, ILL.

It is an evident fact that the materialistic theory is at the present day, among educated people, the popular one, but when, if it has not already reached its flow, the ebb sets in, it will be discovered that the members of the medical profession have in no small degree been responsible for its dissemination, as their preparatory studies necessitate the investigation of matter and its properties, and in the pursuit of this knowledge they lose sight of the fact that there is something immaterial in man, and that some of his acts are free. The same cause exists in all the branches of science, producing like effects, consequently scientific men are largely in the majority in the materialistic ranks, with the medical profession well represented, and all this in the face of the fact that every practitioner of medicine admits, that in numerous instances he recognizes the necessity for the treatment of the mind (whatever he may mean by the word) more than the body. Schiller said: "I abandoned surgery for philosophy and poetry because I found the wounds of the spirit were so much graver and more numerous than those of the flesh." The confidence with which the patient turns with almost every thought to his physician places him in a position next to God, and therefore the expression of an opinion carries with it a weight second to none, hence the relation is a responsible one.

The object, therefore, I have in view, is to attempt to prove that freedom of volition does exist, and that it is incompatible with matter, that man's actions prove that he is not all matter, for in some of them he chooses, and therefore is free, and that the molecules of matter remain as they were created, unbroken and unworn. If I fail to make clear the position I have assumed, if my reasoning is defective, yet should it only awake in the mind of one of my hearers a train of thought that will enable *him* to clear away the cloud which prevents so many from distinguishing the material from the immaterial, the mind as something distinct from matter, though so intimately connected with it, I shall feel amply rewarded for my efforts.

---

[1] Read before the Mississippi Valley Medical Society, Sept. 9, 1885.

Mind and matter are the two factors of the universe. *Mind produces, matter is the product.* And here, perhaps, it will be proper to explain what I mean when I make use of the terms, matter, a simple being, and a spiritual being. Matter has weight, and occupies space to the exclusion of other matter. It exists in three forms, solid, liquid and gaseous, and may be simple or compound. A simple being is not matter, but dependent upon matter, and therefore is material, as light, heat and electricity—forces in a body. A spiritual being is independent of, though incased in matter, and has an extrinsic dependency on matter because it depends upon the nervous system for the report of sensations, and depends upon the body for its compound life with the body, and God does not create it except in a body. Such an entity is *spiritual*, is *immaterial*. The light and heat of the sun is represented when wood or coal is consumed, and the force thus generated is that conserved in their formation, and clearly demonstrates that matter is dominated by a *simple being* (force)—it is the spirit of an otherwise motionless mass.

The materialist declares that there is nothing immaterial in man, that all our acts are necessitated and fated, in other words, we do only what we are obliged to do. What, then, is that mysterious life or entity created only in a body, and which manifests itself in memory, gratitude, love, hate, pride, and the belief in a life beyond the grave, if not something immaterial—spiritual? That we are free we know, for it is a fact of consciousness, human accountability rests on this truth, all laws are based upon it, from those governing the savage tribes, to those of the most civilized nations, for there can be neither reward or punishment, vice or virtue, where there is no freedom of action. Convince a jury that a man's actions are not free, and conviction is impossible. But apart from this, and that inward spiritual speech which alone greets that marvel of creative love—man—and which prompts him to do good and shun evil, and out of the wreck of every earthly hope bids him trust in that unseen creative power for rest in the realms above, there is other evidence inexplicable save by the admission of something not matter controlling our actions. Localized cerebration has been advanced by the materialists as an unanswerable argument in favor of their theory, the seat of intelligence being in the anterior and posterior convolutions of the cerebrum, and that memory has been located in the fissure of Sylvius, near the island of Reil, but is it memory? No! it is merely that portion of the brain where the mind receives, communicates, and expresses the recollections and opinions of subjects and objects, in other words, by certain nervous combinations it reproduces at this spot impressions received. But if I am wrong, and memory is merely the substance of the brain, how is it that in old age, when since youth the grey and white matter have been frequently renewed, we can retain the memory of childhood years? Is it written there as upon parchment? What a mental cyclone there must have been among the atoms of grey matter, if Spencer's theory is correct, and fearfully dangerous commotion in the necessarily rapid movements of mind cells according to Hæckel's idea of cerebration, when Mithridates, king of Pontus, was calling each of his 80,000 soldiers by name! Scipio knew all the inhabitants of Rome, George III never forgot a face that he had once seen, or a name that he had once heard, when Lord Granville could repeat from beginning to end the New Testament in the original Greek, Bossuet could repeat the whole Bible, all of Horace, Virgil, Homer, and many other works. These are a few instances only of remarkable memories, or immense cerebral storage capacity. Can the substance of the brain store a lifetime's experience, and reproduce it at will? But stop! *The will of what?* It must be something superior to, as it controls matter. When we read something ludicrous, the mere sight or sound of the words (actions of matter) do not cause us to laugh, but it is the *ideational* change developed in something apart from matter which affects the risibilities, for if this act was merely mechanical, then every normal cerebral mass subjected to the same sight or sound (cause) should induce the same effect (consequence), but the fact that it does not, but frequently the opposite, excludes such a hypothesis. The same can be said of all our emotions. Why is it that we may become so accustomed to the striking of a clock as to become unconscious of its presence, if the impressions are made only on matter? For the vibrations of the air were transmitted to the delicate membrane of the ear as usual, and from thence to the brain by the natural mechanical and neurotic process, not a sound escapes it, consequently, if *matter* alone takes cognizance of sound, then, as it did make an impression on the substance of the brain, it should have recognized the number when it struck the hour, but the fact that it did not, proves that the cognition or intelligence *is not composed of matter*, but is distinct from it.

I am aware that some materialists claim that the recollection of past events is merely setting in motion again the molecules of grey matter, or, as Hæckel expresses it (Vol. 1, pp. 127), "the mind cells which possess the capacity to feel, to act, to think," which originally produced the perception. (Query—What is *that* capacity? Evidently it is something superior to and distinct from the cell it controls.) But if this be true, I ask, what controls, and what sets these cells in motion again? For that we possess this power, every intelligent person must be conscious, the loss of it *is insanity to that degree*. Why is it that two persons, after viewing a subject or object, arrive at different conclusions? or why, by evidence or reasoning, change them, if the impressions made are simply movements or arrangements of the mind-cells, or impressions on the grey substance of the brain? What has the power to effect the rearrangement of brain substance, and adjust the cells so as to form the new impression? Surely this is only another name for that intelligence which we call spiritual. If not, then the darkness is simply intensified by this kind of an explanation. It is strange how differently the cells arrange themselves, after viewing the same subject or object, in an educated and ignorant person, or even in two persons of equal mental calibre. The school boy is not blameable when he has imperfect lessons, it is merely the wrong arrangement of the mind cells, or the loss of "force" to call up the right ones, though the effect produced upon them by corporal punishment is wonderful, for after a thorough administration of this remedy, we usually find them better prepared at the next recitation. We may be in doubt which of two ways is the correct one to spell a word, but by writing it we can, from the appearance, quickly decide which is right. Now, as there must have been in this case two different arrangements of mind-cells formed in the brain if this theory is correct, what was it that decided the question? We may recall some passage or verse committed to memory years ago, and although we can repeat it word for word, a doubt often arises as to its correctness which can only be removed by reference to the original. Now, what caused this feeling of doubt? It could not have been the mind cells, for they were arranged right, and if they *think*, they must have known it. Why do we then, if this theory be true, condemn defaulters, murderers, thieves, etc.? It is merely the wrong arrangements of the mind cells which impelled them to commit the act, though most of them will admit, that had they heeded that "monitory voice"—that force or capacity—that *something not matter*, which warns us as we walk, and rebukes us when we stray, they would not have fallen. No, we do not inflict punishment upon *machines*, as this theory makes us out to be, but upon *hearts*, *souls*, *characters*, when they have been false to their Creator, to their fellow men, and to themselves by the violation of the law which the natural exercise of their *free will* would have prevented.

Dr. Zuckertort, the chess player, says, in explaining how he is able to play several games at the same time without seeing the board. "I have a way of photographing a board in my mind, and the boards being numbered, when one board is called, the photograph of the position of the men on the board comes instantly before my mind, while the last board disappears, I never see two boards before me for a single instant." Now, what is the power controlling that "force" by which this mind cell shuttle is moved back and forth to the fissure of Sylvius in its proper time and place, if not something superior to, and apart from matter? For, if force acted alone upon matter, the boards would reappear in the *inverse* order of their formation, six, five, four, etc., but the fact that they come as called, one, and five, and three, and six, is *conclusive evidence* that the simple being (force) is controlled by an intelligent, creative power superior to it, which we call mind (a spiritual being). The truth is, that in their attempt to explain these and kindred phenomena, the materialists are led to attribute to laws and actions of matter, what in reality are actions and laws of spirit.

That successful physicians, generals, merchant princes, and landed aristocrats must possess similar powers to those evidenced by Dr. Zuckertort in the game of chess, there can be no doubt, but if this phenomenon is due *alone* to the action of matter, then, as the quantity and quality of brain substance used in cerebration in these cases must be about the same, they should be able to change position with each other with equal success, just as a car constructed to carry ten tons of freight, will transport with equal ease and safety that weight of corn, coal, or any other substance, but that this is not the case with the brain we have convincing proof in the numerous individual instances we can all recall. This demonstrates that its movements are controlled by a spiritual being (mind) acting through a material substance, and that it is not matter that chooses what is agreeable and suitable for its development, for when this spiritual desire is disregarded, failure inevitably follows. If the brain be perfect in quantity, quality and construction, the psychical endosmosis and exosmosis emanating through such an instrument, with proper advantages, will place the possessor among the conceptive and accomplished of his day. Webster's brain would not have varied a single iota in weight or appearance had he remained an ignorant country farmer, but had that something not matter (mind) which marks out the path for, and urges us to follow through life, prompted him to become a chemist, an astronomer or a geologist, there is little doubt but that he would have become as renowned in that branch of science, as he did as a jurist and a statesman. We would not expect a man to make lumber with a hand saw, or think of blaming the engineer because he could not make his engine draw 300 tons when its traction power was only 150. It is exactly so with the mind in its relation to the brain.

The materialists assert, in proof of their theory, that we have no cognitions except such as are afforded us by our sensations, but that we cannot rely on our sensations because the object may not be as our sensations perceive it to be. What, then, do we know? Only that we are and that we feel something, hence we can never know what we are or what we feel. That this reasoning is false we must all acknowledge. To illustrate, if marble, or substances possessing similar properties, be brought in contact with the skin, the impression conveyed to the senses and the sensational understanding is that they must be colder than other substances, such as wood, etc., and this impression would remain, was there not a power apart from and controlling matter, which, regardless of the sensation, informs us that the coldness is illusive, and due to its greater capacity for the absorption of heat, in other words, it is a better conductor. Again, it is evidenced in traumatic pressure of the brain, for we find, after a long interval of insensibility, the mind *at once* resumes its function when the obstruction which prevented the machine (brain) from working is removed. Some twenty-five years ago, Dr. Brainard, of Chicago, removed a piece of depressed bone from the head of a sailor who, twelve months previously, had fallen from the rigging of a schooner and remained insensible up to that time. The moment the pressure was removed, the mind gave proof of its readiness for action by recalling the event, although the past year was a blank in his life. Another case, still more remarkable, occurred in Maine. The son of a miller, while standing on one side of the mill-pond, at a banter from his father, who was on the other side, shot at a snipe standing on a rock in the middle of the pond, the ball missed the bird and, glancing from the stone, struck the father in the forehead. He remained in an insensible condition for nearly two years, when a depressed piece of bone was removed, and the mind taking up the thread where it had been so suddenly broken, he exclaimed: "Zeck, you dog, you missed it," thus proving that in the almost imperceptible interval between the shot and the reception of the injury, the mind had mirrored the fact that the bird was unhurt, and had framed an answer for delivery. Force *alone* could act so instantaneously, but neither force or matter, alone or combined, could retain the knowledge of the event for such a length of time.

If I call a materialist's attention to my watch, and in explanation inform him that in strength in construction, beauty in design, and regularity of movement the jewelled time recorder approximated so closely to perfection that, regardless of thermometric, barometric and electrical changes, the variation would be but the fraction of a second in six months, he would then naturally enough ask: Who made that watch? If I should reply, "No one made it, it made itself," would not this answer justly enough elicit the interrogation, "Is he an idiot, or insane?" The eighty-one stars in Orion have moved back and forth for thousands and thousands of years without collision or departure, for they move with a regularity and precision of which the description of the watch forms but a beggarly illustration. This infinite, endless motion of the stars, this magnificently majestic illuminated planetary procession, moving with a precision which enables us to foretell for years in advance where their shadows will fall, instinctively and intuitively, prompts the question, Who made them? If I reply "They had no maker, *they made themselves*," then, instead of pronouncing the sentence, "He is a *fool, or lunatic*," the materialist exclaims, "Behold an advanced scientist and philosopher!"

I ask the materialist how he accounts for the phenomenon of cerebration? Herbert Spencer answers, 'The mind exists wherever gray matter is found, whether in the axis cylinder of Purkinje, or the neoplasm of the cell itself, and whether found in the tentacle of the cuttle fish, the tail of a dog, or the brain of a man." Hæckel assures us that "the mind is composed of cells which possess the 'capacity' to will, to act, to think," but here we find that they are acted on by some superior force controlling them, and are therefore merely instruments, for if I ask, What do you mean by the word capacity? they answer, "We mean force." Now what is this peculiar force (something created only in a body), not possessed by other cells? That you believe or are convinced of the truth of your assertion I have no doubt, but this will not answer the purpose, how do you *know*, how can we become *conscious* that volition is due to the action of peculiar brain cells, gray matter, or any other substance peculiar to the cerebral mass? Surely it cannot be accounted for in the composition of the material out of which they are constructed, certainly the different form of the cell will not explain it, therefore it remains a very pretty undemonstrable theory without any foundation of facts. That Hæckel was honest in his *belief* that he had discovered that the mind consists of peculiar shaped cells, and that Spencer *thought* that he had demonstrated that the mind was simply the gray matter wherever found, I would not question, for with their conception of it (as we are seldom more than we deem ourselves to be), they would naturally enough expect to find it as quickly in the tentacles of the cuttle fish, or a dog's tail, as in the brain of a man, though Spencer has never shown, nor have we any data that would warrant us in asserting, that a bob tailed dog possessed less intelligence than before he was curtailed of so much of his mental faculties. With the evidence adduced such a predicate would suggest that in his search to discover the origin of this mysterious force, he had exhausted his brain and arrived at this conclusion through an act of cerebration at the other end.

If you ask me, What is the mind? I would answer: That something created within us that can be used to control the voluntary actions of man, as evidenced in his ability to do good or evil, to seek that which is pleasurable and avoid what is painful, to choose the occupation best suited to his endowments, the recollection of names and the objects to which they belong, that which appreciates the character of the impressions received, which knowledge enables us to adopt means for the accomplishment of particular ends, that which forms conceptive ideas in the brain of man by which he moulds the other factor (matter) into forms which, but for this, would not exist, as works of art, and the inventions so necessary for success in peace or war, as well as in the struggle of civilization against barbarism. There is *no other source* whence they can come. In a word, every successful invention is an idea realized—it is the *material* construction of a *mental* conception, and which, but for this, would never have existed, it is this *preexisting* form in the mind that guides the artist's and the artisan's hands, that made an Archimedes and an Angelo, and just as this psychical model is perfect or imperfect, distinctly or indistinctly seen, will the material form shadow forth more plainly than can be told in language. It is related of Michael Angelo that in explaining to a visitor at his studio what he had been doing at a statue since his previous visit, he said: "I have retouched this part, polished that, softened this feature, brought out that muscle, given some expression to this lip, and more energy to that limb." "But those are trifles," remarked the visitor. "It may be so," the artist replied, "but trifles make perfection, and perfection is no *trifle*."

It is the mind that rules. It is this same factor which enables us to look into the future as well as the past, and profit by the experience of those who have preceded us.

Now gray matter, or a so called mind cell, no matter what form it may assume, by which it is distinguished from other brain cells cannot distinguish the phenomenon except as an *instrument*, because it is composed of matter, and matter can act only as it is acted on. The brain and nervous substance are similar in their chemical nature. The chief difference between the white and gray portion is in their structure, the former being composed of nerve fibres alone, the latter containing, in addition to the nerve-fibres, interstitial matter and nerve cells. They contain eighty per cent of water, the solid matter consisting in part of a protein body, in part of a body which, by the action of acids, yields products similar to the viscous matter of the yolk of an egg, a fatty crystalline acid which contains nitrogen and about one per cent of phosphorus, named cerebric acid. Cholesterine is also present, and an oily, fatty acid containing phosphoric and oleic acid. Now what is there, singly or combined, in these substances which could possess the power "to will, to act, to think?" That they are composed of matter is proved by the fact that they can act only as they are acted on. For you may mix them all in the proper proportion, yet you cannot form organized brain substance, but were it possible to accomplish this feat, can we think for a moment that it could be made to perform the act of cerebration? No, for it would lack the presence of that capacity, that force, that something *not matter*, which vitalizes and controls it. Just as a stream of oxygen and hydrogen gas, though they have a strong affinity for each other, may be mingled with impunity, but the mere presence of a piece of platinum sponge will cause them to combine, though the platinum is not changed in the slightest degree. This something encased in matter is the platinum for our body, and so long as it remains and the chemical elements are supplied, just so long does it perform its katalytic office, and the force thus generated acts as the motor for our various vital processes. It is true, that under certain circumstances we can take the human machine after the katalytic, entity has taken its flight, and by inducing artificial respiration molecular life will remain for a limited time, but this result is obtained by the exercise of an external, as before it was due to an internal, force, both genererated, however, in the same way. But that something, created for it, that we call life, can never be recalled, the somatic death removed, or the once intelligent being be made to respond in this world to inquiries. In volition, if it be regarded as the effect of chemical action, the same quantity produces results as different as the school girl's musical composition and the masterpiece of a Mozart, a Raphael's conception of the Madonna and the daub of a sign painter. No quantity or quality of brain matter ever generates a true idea, or a false one. Matter does not think, it does not feel, and how an impression upon the periphery of a nerve becomes transformed into a *sensation* is, as Professor Huxley remarks, utterly unknown to us, and still more obscure is the character of self-conscious intellection.

Finally, as materialism is the study of matter and its properties, it is essential for a materialist to be a chemist as well as a physiologist, in order to investigate the subject intelligently, yet how few of the members of this school possess these necessary requirements? Chemistry informs us that everything in nature, whether simple or compound, depends for what it is, upon that which is not. It shows us, among a host of other things, that C_4H_8O, with the atoms grouped differently, produces the disagreeable smell of rancid butter and the agreeable odor of ripe apples, $C_8H_5O_6$, for like reasons, forms the different bodies, sugar, starch, and wood, but the force that grouped them remains an unknown factor. It answers the question, What is the quantity, quality, arrangement and the mechanism of the atoms which give form to animals and plants from conception to maturity and death? but it is utterly unable to explain why, what or whence came that mysterious microscopic atom of energy, the presence of which gave birth alike to the giant oak, the modest blade of grass, the huge mastodon and the infinitisimal infusoria. It speaks to us of design in language not to be misunderstood, when it shows that every organic and inorganic substance is composed of an undeviating combination of atoms held together by a force not inherent in any one or the combination, for if we reduce an organic substance to its ultimate atoms, collect the oxygen, hydrogen, carbon, nitrogen, etc., we are incapable of putting them together again because we cannot generate the life force which originated it. Chemistry tells us the composition of common salt, but it cannot explain why this healthful compound is formed by the union of two deadly poisons. The physiologist has located memory and the receptive points in the brain of man and that stimulus which induces many of his volitional acts, but what it is that retains and reproduces—that wills—it cannot solve. Physiology furnishes the proof that growth and decay, waste and repair, are simply the chemical processes of secretion and excretion, or an endosmotic and exosmotic action, but how the atoms should be so grouped as to form a microscopic thread of matter containing all the necessary foundation stones upon which to build a little image of the animal within whom it was deposited, with all its varied and intricate organs, is a physiological enigma, nor have we any data for speculating as to its origin. It has demonstrated that the function of the nervous system is to associate the different parts of the body, and it informed us as to the interval of time between the application of stimulus to one organ and the excitation of activity in another, but it is arrested when it attempts to explain what it is that appreciates the character of the impressions received.

Therefore we reason, if the faculties of memory, gratitude, love, hate and pride, the power of self-control, of looking into the future as well as the past, of reasoning from cause to effect, is simply the effect of chemical combinations, then the same physiological properties of the hemispheres of the brain in man should be reproduced in the lower animals, as well as in all organic substances where this same process is constantly at work, and upon which their growth and existence depends But the absurdity of such reasoning is shown when we see that, although the chemist has determined, with the utmost accuracy, of what elements the proximate constituents of plants are composed, and by what proportions by weight, he has never yet succeeded in reconstructing these constituents from their elements We cannot imitate, by art, the workings of nature in living plants as we can do most perfectly in inorganic chemistry Certain it is that if the act of volition is due to molecular life, then as this does not cease at the moment of death, but can be maintained for a limited time thereafter, then while the cause remains the same effect should manifest itself, but the fact that with somatic death they cease, proves that it is not consequent on or dependent upon chemical change, but is distinct from it, in other words, it is dependent upon some departed superior force or cause Thus we have traveled over a scientific path to say what the mind is not, what it is in its essence, will ever remain, in this world, a mystery We also see that the materialist is encompassed with fears and doubts unknown to the Christian, and if, as Hæckel claims, "the theory of the creation is a blind belief," how much more so is that of materialism, "the scientific theory of evolution," in the former we follow a bright ray of light, while the latter is impenetrable darkness

In conclusion, then, we know that the organic portion of all living organisms is formed by chemical combinations, induced by a katalytic something, and governed by certain immutable laws by which the atoms of matter are so arranged as to give the distinctive form and size in accordance with the microscopic foundation of the sperm model deposited in its proper creative receptacle We know that chemical combinations do not, nor can they be made to, give origin to life in any of its phases, and, therefore, in accordance with an axiom in reasoning, we conclude that this must *always* have been the case, and as matter cannot bestow upon its combinations that which it does not possess, that organic life must be consequent on and dependent upon that which gave it birth—something not matter, hence the materialist should change his name as well as his field, for he must exclude matter in his search for psychical properties and action

We must all admit that the celebrated atheist and scientist, Du Bois-Reymond, was right when he said "With regard to the enigma of the physical world, the investigator of nature has long been wont to utter his 'Ignoramus' (we know not) with manly resignation As regards the enigma of what matter and force are, and how they are to be conceived, he must resign himself once for all to the far more difficult confession—'Ignorabimus' (we shall never know)" We may not be able to give at once an intelligent explanation of all the physical phenomena coming under observation, but we have reason to believe that in the future, as in the past, a solution will be found

ADDRESS IN MEDICINE DELIVERED BEFORE THE NEBRASKA STATE MEDICAL SOCIETY, MAY, 1885

BY ALFRED SHIPMAN, M D,

OF PLATTSMOUTH NEB

The successful treatment of the various diseases which afflict mankind is based upon sound conception of pathology, while pathology has for its basis an absolutely correct knowledge of physiology In the formation of pathology, physiology is indispensable In order to reach a correct diagnosis we must have a correct system of pathology Were the physiological conditions and principles always clearly known and understood, our system of pathology might approach perfection, but physiology is not an exact science, perhaps never will be Absolute knowledge in regard to all and every physiological state and condition may never be attained Physiology may be said to be one of the least mature, because one of the most complex of the sciences Therefore our pathology may remain defective, and if so, the practice of medicine will continue to be an imperfect art, medicine will continue to be a progressive but not an exact science

I am one who believes that medicine is a progressive science, and that in many of its departments it already approaches a precision scarcely realized by many practitioners Contrasting the difference in the practice of to day with the practice current even twenty-five years ago, and who will say no advance has been attained Reduce the time to a review of the progress made during the past society year, and even during this short period the accumulation of material for consideration covers such a vast field of thought that to properly present the same for your consideration in the short space of time allotted to us becomes an impossibility I am free to say that there is a fashion among many of regarding change of any kind, progress A simple change in the manner of treating a particular disease is not always evidence of medical progress We sometimes follow false lights, but not for any great length of time

Actual improvements, and progress in medical practice are the result of careful research Patient investigation, careful physiological research, and abundant experimentation furnish the ground work for all forms of advancement in our art The over confident assertion of one man may prove nothing, but the conjoined experience of many physicians may establish a principle in practice From that day when the fathers in medicine began to record their experience and relate their plans of treatment, down to this, our day, medicine has been progressive Although it may not take the recorded experience of thousands to establish a period in practice, yet it is necessary for each individual member of the profession to give voice to his convictions in order that what little knowledge he may have gleaned may become useful to the profession at large

It is the duty of every physician to patiently, persistently, and scientifically investigate those diseases he is called upon to treat In no other way can he become a competent practitioner, and in no other way can he so well promote the best interests of his patients, himself, and the profession. Actual progress in medicine is necessarily slow. All the numerous theories advanced must be patiently investigated. Investigation must be made in more than one direction. After discovering the etiology of disease, we must master its therapeutics. Theories may be worked out in the pathological laboratory, but these theories must be proven by clinical demonstrations before they can be accepted by intelligent physicians.

During the past few years investigations in the department of etiology have been interesting and very instructive, but perhaps not as profitable as they might have been had more attention been given to clinical observations. It has been said, and the statement still holds good, "that the place to study disease intelligently is at the bedside." Persistent investigation in the biology of germs has certainly yielded some important results, and leading members of the profession now admit that micro-organisms are the exciting cause of numerous diseases. It is quite generally admitted that diphtheria, scarlatina, rubeola, and tuberculosis are germ diseases, while Koch's comma bacillus presents admirable claims for recognition as the one and only factor in the production of Asiatic cholera.

The investigations of Koch in relation to cholera have thrown light in dark places, and it is thought that he has established some facts. He asserts, and has apparently proven, that a certain parasite is present in all cases of true cholera. Specimens of his cholera bacillus have been exhibited to several local medical societies, and converts to his ætiological views are numerous and influential. Investigations conducted by Pasteur, Koch, Cohn, Klebs, Wood, Formad, and others have been conducted principally with the view of proving or disproving the presence of micro-organisms in certain diseases, and the revelations of the microscope have added much to our knowledge of the apparent cause of many individual diseases.

The uniformity with which certain parasites are found in connection with certain pathological conditions clearly establishes the fact that these germs are either the exciting cause of the disease existing, or else are a product of diseased action.

It may be said that the profession is divided in opinion regarding the influence of germs in producing diseases. But it is a fact that a great number, a vast majority, are favorable to the view that the multiplication of infinitesimal parasites is the cause of nearly all the so-called zymotic diseases. The idea that a specific poison may be a living organism is certainly in accordance with common sense at least. It will be of little value, however, for our microscopists to hunt up these parasites, unless we can have more accurate more definite clinical observations, and thereby acquire more positive knowledge as to their pathogenetic value. It may be said that although the theory of Koch in regard to the cause of Asiatic cholera, has received the endorsement of many leading men in the profession, we should understand that further investigation is necessary before we can declare that the comma bacillus is the sole cause of cholera.

Some doubt is thrown around the assertion of Koch and others from the fact that no clinical proof is forthcoming. Although the comma bacillus has been inhaled, swallowed, and injected it is said not a single case of cholera has been produced; probably, we should remember, because the pathological state or condition upon which development of the disease to a certain extent depends was not present in those upon whom experiments were made. The production of a single case of cholera from the immediate introduction of the comma bacillus, would do more to establish Koch's claims than would the assertions of ten thousand men unsupported by clinical proof.

In medicine we do need more facts and less theory. We also need more exact observations of clinical and therapeutical facts. The rank and file of the profession should not be dazzled or confused by the brilliancy appearing in the investigations of a Pasteur or a Koch; it should not accept, without question, their opinions in regard to any supposed discovery which is unsupported by any clinical proof. It appears to me that humbler members of the profession are losing interest in clinical observation, and delegating investigations entirely to that enterprising branch of the profession represented by the microscopist. We cannot investigate disease intelligently with the microscope alone; it is true that this instrument has given us much valuable information, but the time has not yet arrived when we can diagnosticate disease by it alone. The profession should not lose sight of the examples of clinical work given us by Trousseau, Watson, Flint, Roberts, Da Costa, and other safe guides in medicine. Neither should any of us abandon our efforts to solve the problem of diseased action by close and accurate observation at the bedside. The needs of more accurate bedside investigation of disease was never more apparent than it is to-day.

The promulgation of what we call the germ theory of disease needs closer investigation, not only further microscopic test, but more careful experimentation. Undoubtedly we are on the eve of an important epoch in medical advancement. Especially is this the case in regard to a class of diseases which the profession have long regarded as being caused by some special infection. Is there a special infinitesimal parasite, one kind of which originates cholera, another diphtheria, and so on? Is there a particular organism for each one of the zymotic diseases, or are these germs simply one of the morbid elements in the pathological condition present?

It would add much to the credit of our profession, if this perplexing question of the part that micro-organisms play in the production of disease could be settled at once. But it is not given to man to know all things, and it is probably a fact that the more deeply we enter into the invisible constitution of matter, the more confusing the problem will become. For example, it is impossible to recognize some of these micro-organisms with our highest magnifying power, unless they are first passed through a staining process. The manipulation necessary in the hunt after these germs certainly requires the exercise of great, or exceptional skill, and the possibility of error is present in every examination. Nevertheless, although a positive indisputable demonstration in regard to germ influence may be impossible at this time, there may, happily, be further clinical proof forthcoming.

Koch's theory of special infection is born out in the past history of cholera, and therefore, his investigations have given us still stronger ground for our former belief in the especially infectious nature of this disease, has furnished more evidence that the infectious matter is propagated from the excreta of the patient, and strengthens the belief that prevention through thorough disinfection is possible. The evidence in favor of the theory that cholera, diphtheria, scarlatina, variola, rubeola, and in fact all of the so called zymotic diseases are caused by micro organisms is rapidly increasing. The literature of germs is becoming voluminous, and extremely interesting. In a recent letter to your Chairman, that eminent teacher, Roberts Bartholow, makes use of the following language: "The battle of the bacilli is still raging with the odds in favor of Koch's comma bacillus. Klein, of London, a pupil of Stricker, of Vienna, denies the agency of the comma bacillus in causing cholera. It is alleged on the one hand that in a few instances cholera has been induced by the culture of the comma bacillus, and on the other hand Klein swallowed some without any effect. As Koch represents the Berlin school and Klein the Vienna, an agreement of views is not probable. If in any instance it is found that Koch's comma bacillus induces a cholera paroxysm his position is proved, for any number of negative facts cannot overcome one positive fact. As yet the evidence in favor of the comma bacillus is not sufficient to decide the question, but there is an increasing probability in favor of the view of its pathogenetic value."

In regard to Dr. Klein's opposition to Koch's theory, I would say that he has practically abandoned his views formerly expressed, and very recently made the following statement: "While the comma bacillus, in and of itself, is harmless, yet it does produce a virus which causes cholera." Speaking of the bacillus tuberculosis, the veteran Professor Austin Flint says: "The presence of a parasite in tuberculosis has been demonstrated. The great preponderance of evidence is in favor of the view that it is uniformly present in product recognized to be tuberculous. The conclusion which he reached was, that there was some essential connection between the presence of the parasite and the tuberculous disease; believes other causes may cooperate in the product of tubercle. But the presence of the specific parasite is essential." It will be noticed that this is a modification of the opinion expressed by Prof. Flint something over a year ago, and may be said to embody the prevailing opinion of a majority of the profession in regard to tubercle bacilli.

In the department of Special Therapeutics we have to notice the increasing tendency to hunt after specifics. In the opinion of some this practice is condemned, we think rather it should be commended. This restlessness in regard to and desire for improvement in our materia medica has been productive of much good. It has given us, I might say, nearly all our valuable remedies, and among them the last, but not the least, is the pain destroying cocaine, which latter remedy, although yet an infant, promises to speedily become a giant power for the relief of pain. A great effort toward more efficient therapeutical management of disease characterizes the work of the profession during the past year, and undoubted advancement has been attained.

The many revelations of the microscope have greatly added to our knowledge of the etiology of certain diseases, and have had the effect of remodeling our therapeutics to a certain extent. We all know that a belief in the germ doctrine has been productive of clean surgery, and thereby the saving of thousands of lives annually. That the use of antiseptics has made successful life saving operations that were formerly impracticable. The great principle in antiseptic surgery is the exclusion of micro-organisms, and therefore may mean simply perfect cleanliness. Thorough preventive medication is the principle involved, and implies the use of germicide remedies, the most popular of such remedies at the present time being the bi chl. mercury. How well germicides have served surgery any good surgeon can tell you. How much anti-germ remedies may do in preventing or controlling disease, is yet a subject for further consideration and experimentation.

While it is well known that we have but few remedies that should be regarded as specifics in any particular disease, we do know that so far as the destruction of infectious matter is concerned, we have remedies within the reach of all. When the same rules of cleanliness surround our patients suffering with a zymotic disease, as surround the patient of a Lister, then, and not till then, may we know what the practice of strict antisepticism may do for suffering humanity. It is true that all recognized that there was some necessity for cleanliness before the germ doctrine was advocated, but its promulgation has led to widespread knowledge in regard to the origin of many diseases, and never before were whole communities so well versed in the knowledge necessary to the prevention of what are now known to be preventable diseases—to prevent the occurrence is better than to cure a disease.

In the great advance in Sanitary Science, shines forth the grandeur of the work done by such investigators as Koch, and such experimenters as Lister. And now, what lessons may be learned from the investigations already made in the biology of germs? We may say that the idea of life in its simplest acceptation is that of vital activity. The increase of life of one particular form or sort may undoubtedly be destructive to life in other forms. The multiplication of organisms under certain conditions may, and probably does, give rise to the development of certain pathological conditions. What the laws of nature may be in regard to the development of infinitesimal organisms can only be learned through patient microscopic investigation. What the effect of the multiplication within our bodies of these micro-organisms is, can only be learned by the most careful, painstaking clinical observations

I think that we are now able to understand more fully that the history of life is a contention amid its various forms, and that all life, be it of whatever sort, has associated relations, and that these relations are of an important character We may now believe that some facts have been presented which lead us to realize that further investigation may give a bright light upon the pathway of pathological knowledge, that another milestone has been set upon that crooked pathway that will eventually lead mankind up the hill of science to a perfected system of pathology, and that with better knowledge in regard to all the various forms of life, our physiology will be greatly improved, our pathology approach perfection, and medicine finally become an exact science In order to assist in bringing about this happy consummation, it is necessary for us all to continue to observe and work

MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS

Urethane as a Hypnotic—Dr von Jaksch (*Wein med Bl, Dtsch Med Ztg*) describes urethane as the ethyl ether of carbamic acid, NH CO C-H_5, a white, crystalline body, readily soluble in water, odorless, and tasting like saltpetre In doses of from four to fifteen grains, it acts as a hypnotic, affecting the brain, without notably influencing the peripheral sensory apparatus, hence it is not an anodyne Over all other pure hypnotics, however, it seems to have these advantages It is very well borne, it causes absolutely no complicating effects, and the sleep it produces resembles natural sleep in every respect The author thinks it will prove particularly serviceable among children and in cases of delirium tremens and mania —*N Y Med Jour*, Oct 3, 1885

Lantanine as a Febrifuge—This alkaloid, extracted by Negrete from the verbenaceous plant *Lantana brasiliensis*, is recommended by Dr E Buiza, of Lima (*Nouveaux Remedes*), as a substitute for quinine It retards the circulation and lowers the temperature, and is tolerated by the most delicate stomachs Intermittents that have proved rebellious to quinine have yielded to thirty grains of lantanine As an antipyretic, it is given in doses of a grain and a half, from ten to twenty of which are administered in twenty four hours For intermittent fever, it should be given immediately after a paroxysm, and in ninety-five cases out of a hundred the next paroxysm will not appear —*N Y Med Jour*, Oct 3, 1885

MEDICINE

A Case of Chronic Parenchymatous Nephritis Cured by the Subcutaneous Injection of Pilocarpine—Dr J Lazarus reports a case of chronic parenchymatous nephritis cured by hypodermatic injections of pilocarpine The patient, when first seen by Dr Lazarus, May 11th, had been ill several months, and his entire body was swollen and shapeless The legs, belly, and scrotum were enormously distended, and the last was attacked by superficial gangrene Both buttocks, both thighs, and both legs, as well as both feet, were the seat of pus discharging ulcers, due to phlegmonous inflammation of the subcutaneous cellular tissue A bedsore in the sacral region added to the pain and discomfort of the patient Great difficulty in breathing was also experienced, and profuse diarrhœa was present The urine was scanty, and had a specific gravity of 1040, and in consequence of the great amount of suspended material, composed of epithelial scales, detritus, etc, was cloudy, and even before the boiling point was reached was converted into a stiff jelly

On inquiry it was learned that the present condition began entirely unnoticed, and that in February the swelling of his feet led him first to seek professional advice Continuing his employment until April, he was at last compelled to remain in bed, owing to the increased swelling of his feet, and to extreme weakness, and to subject himself to systematic treatment

Treatment consisted in the employment of hot baths and in the medication generally employed in the treatment of Bright's disease, but no improvement resulted Dr Lazarus at once determined to resort to the hypodermatic use of pilocarpin Previous to the administration of the drug, a small quantity of brandy was given to support the heart, and followed by the injection into the thigh of one-third of a Pravaz's syringeful of the following

℞ —Pilocarpin muriat gr iss
Aquæ dist f ℥iss

The patient at once began to perspire abundantly, and for six hours was continuously bathed in perspiration, at the same time abundant salivary discharge was excited, amounting the first day after the injection to fully a quart

The only unfavorable symptoms noted subsequent to the administration of the drug, were repeated vomiting and difficulty in swallowing Brandy in quantities of a teaspoonful was administered two or three times hourly, and no symptoms of collapse were manifested The second day a half syringeful of the same solution was injected, the third day two-thirds, and the fourth day a whole syringeful, and for three weeks subsequently a like quantity was injected into each thigh alternately

The quantity of urine increased under the treatment from eleven ounces per diem, having a specific gravity of 1040 at the time of the first injection, to more than two quarts, with a specific gravity of 1002 at the twentieth injection With the twentieth injection the dropsy had entirely disappeared, and the extreme emaciation of the patient became apparent In the region of both trochanters, on the outer side of each thigh, as well as upon the outer side of the legs, there were large purse-like expansions of the cutis, due to phlegmonous inflammation in the subcutaneous cellular tissue, fluctuating and painful on movement

Believing that the small quantity of albumen still persisting in the urine, and the feverish condition of after these germs certainly requires the exercise of great, or exceptional skill, and the possibility of error is present in every examination. Nevertheless, although a positive indisputable demonstration in regard to germ influence may be impossible at this time, there may, happily, be further clinical proof forthcoming.

Koch's theory of special infection is born out in the past history of cholera, and therefore, his investigations have given us still stronger ground for our former belief in the especially infectious nature of this disease, has furnished more evidence that the infectious matter is propagated from the excreta of the patient, and strengthens the belief that prevention through thorough disinfection is possible. The evidence in favor of the theory that cholera, diphtheria, scarlatina, variola, rubeola, and in fact all of the so-called zymotic diseases are caused by micro organisms is rapidly increasing. The literature of germs is becoming voluminous, and extremely interesting. In a recent letter to your Chairman, that eminent teacher, Roberts Bartholow, makes use of the following language: "The battle of the bacilli is still raging with the odds in favor of Koch's comma bacillus. Klein, of London, a pupil of Stricker, of Vienna, denies the agency of the comma bacillus in causing cholera. It is alleged on the one hand that in a few instances cholera has been induced by the culture of the comma bacillus, and on the other hand Klein swallowed some without any effect. As Koch represents the Berlin school and Klein the Vienna, an agreement of views is not probable. If in any instance it is found that Koch's comma bacillus induces a cholera paroxysm his position is proved, for any number of negative facts cannot overcome one positive fact. As yet the evidence in favor of the comma bacillus is not sufficient to decide the question, but there is an increasing probability in favor of the view of its pathogenetic value."

In regard to Dr. Klein's opposition to Koch's theory, I would say that he has practically abandoned his views formerly expressed, and very recently made the following statement: "While the comma bacillus, in and of itself, is harmless, yet it does produce a virus which causes cholera." Speaking of the bacillus tuberculosis, the veteran Professor Austin Flint says: "The presence of a parasite in tuberculosis has been demonstrated. The great preponderance of evidence is in favor of the view that it is uniformly present in product recognized to be tuberculous. The conclusion which he reached was, that there was some essential connection between the presence of the parasite and the tuberculous disease, believes other causes may *cooperate in the product* of tubercle. But the presence of the specific parasite is essential." It will be noticed that this is a modification of the opinion expressed by Prof. Flint something over a year ago, and may be said to embody the prevailing opinion of a majority of the profession in regard to tubercle bacilli.

In the department of Special Therapeutics we have to notice the increasing tendency to hunt after specifics. In the opinion of some this practice is condemned, we think rather it should be commended. This restlessness in regard to and desire for improvement in our materia medica has been productive of much good. It has given us, I might say, nearly all our valuable remedies, and among them the last, but not the least, is the pain destroying cocaine, which latter remedy, although yet an infant, promises to speedily become a giant power for the relief of pain. A great effort toward more efficient therapeutical management of disease characterizes the work of the profession during the past year, and undoubted advancement has been attained.

The many revelations of the microscope have greatly added to our knowledge of the etiology of certain diseases, and have had the effect of remodeling our therapeutics to a certain extent. We all know that a belief in the germ doctrine has been productive of clean surgery, and thereby the saving of thousands of lives annually. That the use of antiseptics has made successful life saving operations that were formerly impracticable. The great principle in antiseptic surgery is the exclusion of micro-organisms, and therefore may mean simply perfect cleanliness. Thorough preventive medication is the principle involved, and implies the use of germicide remedies, the most popular of such remedies at the present time being the bi chl mercury. How well germicides have served surgery any good surgeon can tell you. How much anti germ remedies may do in preventing or controlling disease, is yet a subject for further consideration and experimentation.

While it is well known that we have but few remedies that should be regarded as specifics in any particular disease, we do know that so far as the destruction of infectious matter is concerned, we have remedies within the reach of all. When the same rules of cleanliness surround our patients suffering with a zymotic disease, as surround the patient of a Lister, then, and not till then, may we know what the practice of strict antisepticism may do for suffering humanity. It is true that all recognized that there was some necessity for cleanliness before the germ doctrine was advocated, but its promulgation has led to widespread knowledge in regard to the origin of many diseases, and never before were whole communities so well versed in the knowledge necessary to the prevention of what are now known to be preventable diseases—to prevent the occurrence is better than to cure a disease.

In the great advance in Sanitary Science, shines forth the grandeur of the work done by such investigators as Koch, and such experimenters as Lister. And now, what lessons may be learned from the investigations already made in the biology of germs? We may say that the idea of life in its simplest acceptation is that of vital activity. The increase of life of one particular form or sort may undoubtedly be destructive to life in other forms. The multiplication of organisms under certain conditions may, and probably does, give rise to the development of certain pathological conditions. What the laws of nature may be in regard to the development of infinitesimal organisms can only be learned through patient microscopic investigation. What the effect of the multiplication within our bodies of these micro organisms is, can only be learned by the most careful, painstaking clinical observations

I think that we are now able to understand more fully that the history of life is a contention amid its various forms, and that all life, be it of whatever sort, has associated relations, and that these relations are of an important character We may now believe that some facts have been presented which lead us to realize that further investigation may give a bright light upon the pathway of pathological knowledge, that another milestone has been set upon that crooked pathway that will eventually lead mankind up the hill of science to a perfected system of pathology, and that with better knowledge in regard to all the various forms of life, our physiology will be greatly improved, our pathology approach perfection, and medicine finally become an exact science In order to assist in bringing about this happy consummation, it is necessary for us all to continue to observe and work

MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS

Urethane as a Hypnotic—Dr von Jaksch (*Wein med Bl, Dtsch Med Ztg*) describes urethane as the ethyl ether of carbamic acid, NH CO C-H_5, a white, crystalline body, readily soluble in water, odorless, and tasting like saltpetre In doses of from four to fifteen grains, it acts as a hypnotic, affecting the brain, without notably influencing the peripheral sensory apparatus, hence it is not an anodyne Over all other pure hypnotics, however, it seems to have these advantages It is very well borne, it causes absolutely no complicating effects, and the sleep it produces resembles natural sleep in every respect The author thinks it will prove particularly serviceable among children and in cases of delirium tremens and mania —*N Y Med Jour*, Oct 3, 1885

Lantanine as a Febrifuge—This alkaloid, extracted by Negrete from the verbenaceous plant *Lantana brasiliensis*, is recommended by Dr E Buiza, of Lima (*Nouveaux Remedes*), as a substitute for quinine It retards the circulation and lowers the temperature, and is tolerated by the most delicate stomachs Intermittents that have proved rebellious to quinine have yielded to thirty grains of lantanine As an antipyretic, it is given in doses of a grain and a half, from ten to twenty of which are administered in twenty four hours For intermittent fever, it should be given immediately after a paroxysm, and in ninety five cases out of a hundred the next paroxysm will not appear —*N Y Med Jour*, Oct 3, 1885

MEDICINE

A Case of Chronic Parenchymatous Nephritis Cured by the Subcutaneous Injection of Pilocarpine—Dr J Lazarus reports a case of chronic parenchymatous nephritis cured by hypodermatic injections of pilocarpine The patient, when first seen by Dr Lazarus, May 11th, had been ill several months, and his entire body was swollen and shapeless The legs, belly, and scrotum were enormously distended, and the last was attacked by superficial gangrene Both buttocks, both thighs, and both legs, as well as both feet, were the seat of pus discharging ulcers, due to phlegmonous inflammation of the subcutaneous cellular tissue A bedsore in the sacral region added to the pain and discomfort of the patient Great difficulty in breathing was also experienced, and profuse diarrhœa was present The urine was scanty, and had a specific gravity of 1040, and in consequence of the great amount of suspended material, composed of epithelial scales, detritus, etc, was cloudy, and even before the boiling point was reached was converted into a stiff jelly

On inquiry it was learned that the present condition began entirely unnoticed, and that in February the swelling of his feet led him first to seek professional advice Continuing his employment until April, he was at last compelled to remain in bed, owing to the increased swelling of his feet, and to extreme weakness, and to subject himself to systematic treatment

Treatment consisted in the employment of hot baths and in the medication generally employed in the treatment of Bright's disease, but no improvement resulted Dr Lazarus at once determined to resort to the hypodermatic use of pilocarpin Previous to the administration of the drug, a small quantity of brandy was given to support the heart, and followed by the injection into the thigh of one-third of a Pravaz's syringeful of the following

℞ —Pilocarpin muriat	gr iss
Aquæ dist	f ℥iss

The patient at once began to perspire abundantly, and for six hours was continuously bathed in perspiration, at the same time abundant salivary discharge was excited, amounting the first day after the injection to fully a quart

The only unfavorable symptoms noted subsequent to the administration of the drug, were repeated vomiting and difficulty in swallowing Brandy in quantities of a teaspoonful was administered two or three times hourly, and no symptoms of collapse were manifested The second day a half syringeful of the same solution was injected, the third day two-thirds, and the fourth day a whole syringeful, and for three weeks subsequently a like quantity was injected into each thigh alternately

The quantity of urine increased under the treatment from eleven ounces per diem, having a specific gravity of 1040 at the time of the first injection, to more than two quarts, with a specific gravity of 1002 at the twentieth injection With the twentieth injection the dropsy had entirely disappeared, and the extreme emaciation of the patient became apparent In the region of both trochanters, on the outer side of each thigh, as well as upon the outer side of the legs, there were large purse-like expansions of the cutis, due to phlegmonous inflammation in the subcutaneous cellular tissue, fluctuating and painful on movement

Believing that the small quantity of albumen still persisting in the urine, and the feverish condition of the patient, were a result of these purulent collections, Dr Lazarus opened the pouches at brief intervals, and treated them antiseptically with iodoform gauze and drainage, they rapidly healed, as did also the bedsore and superficial gangrene of the scrotum At the same time the secretion of urine rapidly increased, so that the quantity passed exceeded the normal, reaching three to four quarts daily The cicatrization of the last suppurating cavity was followed by the entire disappearance of albumen from the urine The patient was finally subjected to further treatment by hot baths, and daily increased in strength, his health finally becoming entirely restored —*Wiener med Presse*, August 2, 1885 —*Medical News*, September 26, 1885

ARSENIC IN LYMPHADENOMA —DR STEPHEN MONCKTON reports the following interesting case showing the value of arsenic in lymphadenoma

During the first week of March, 1885, J G, aged 57, married, of sober and healthy antecedents, presented himself to me as an out patient at the West Kent General Hospital As I had known him before, it could be seen at once that he was thin and sickly At first, no definite complaint on his part could be elicited, but mention was made of a swelling in the armpit This led to his being completely stripped, when a considerable bunch of enlarged glands was seen at once above each collar bone, in each armpit, and in each groin He did not think they could have existed more than six or eight weeks, but this was doubtful Our district meeting was to come off at the hospital on March 27 I persuaded him to come for exhibition, and he was willing enough to do so, on that occasion, being again stripped, he was examined by twenty or thirty medical friends The gland bunches stood out even bigger, in average bulk, they may be spoken of as a large handful each

At the same meeting, our attention was called to a new form of pill preparation carried out at Hamburg, the principle being to invest the drug in keratin, or horn gelatine, in such a way as to render the pill insoluble in the acid fluids of the stomach, while it becomes readily dissolved in the alkaline contents of the upper bowel It occurred to me that the delayed solution ought to be advantageous when applied in the case of arsenic, and also that arsenic was the most hopeful remedy for the patient with lymphadenoma I procured a supply of the pills through the firm of Bell & Co, Oxford Street, each pill being stated to contain one thirteenth of a grain of arsenious acid The pills were commenced about the 4th or 5th of April, and continued, one thrice daily, till June 4 No disturbance of any sort resulted, he came once a week to the hospital, declared that he was being cured, and to my eyes, and to those of a colleague and the house-surgeon, it was certain that every bunch of glands steadily and considerably diminished

On June 4 he came, a stricken and altered man, having been seized forty-eight hours before with pleuro-pneumonia, then fatally rife He was sent back to the care of his country medical man, and died within a fortnight That gentleman remarks that, at the last, the bunches of glands had almost disappeared

Whether the fatal attack was an accidental episode, or whether it was based on intra-thoracic glandular mischief, cannot be known Whether, if he had escaped the pulmonary attack, the original disease would have continued to yield constitutionally and locally, is equally uncertain

I ask the publication of this case on two grounds alone first, because in no other case in my life did I ever see lymphadenomatous masses diminish under any treatment whatever, and, second, because, as two or three other recent cases have also done, it illustrates the tolerance of arsenic which this special mode of treatment seems to confer —*British Med Journ*, Sept 26, 1885

ANTIPYRIN IN HECTIC FEVER —At the meeting of the Cambridge Medical Society, on August 7, DR MACALISTER gave an account of the nature and uses of this drug, and showed the temperature charts of two patients recently treated in Addenbrooke's Hospital Both suffered from phthisis, apparently limited to the apices of the lungs In one case, that of a man, aged 25, hectic fever appeared, the morning temperature was 98°, the evening temperature 102 ° Antipyrin in fifteen grain doses, administered twice in the course of the afternoon, promptly reduced the range of daily oscillation to 1°, about the normal temperature An omission of the drug was followed by recurrence of the hectic, but again the temperature fell, and was maintained low by five grain doses given thrice a day At the same time, the patient became more comfortable and slept better, some tendency to sweating was checked by minim doses of liquor-atropiæ sulphatis The other case, that of a woman, aged 44, with still more urgent symptoms, and a temperature ranging from 98° to 103°, was treated in a similar way, with equally good results In neither patient was any rash or marked nausea produced, and both were in a little more than a fortnight so much better that they were transferred to the out patient department Dr MacAlister thought that, in many cases in which fever was a symptom, it was sound practice to attempt to reduce the temperature for its own sake Antipyrin, of all the anti pyretics he had tried, seemed to be the most powerful with the fewest disadvantages —*British Med Journ*, Sept 26, 1885

FRIEDRICHSHALL WATER IN HABITUAL CONSTIPATION —DR WILLIAM MURRELL, in a note on this subject, says Friedrichshall has a special constitution, which secures to it marked preference over the ordinary sulphate of magnesia waters Its special advantages are probably largely due to its combination of chlorides with sulphates It is not merely a saline aperient, but it has valuable properties in influencing tissue-change and promoting excretion of uric acid Its use is attended with excellent results is cases of congestions of the liver and kidney, as a corrective of the digestion, and as what may be familiarly described as a tonic-aperient —*Brit Med Journal*, Sept, 19, 1885

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE
PER ANNUM IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the under signed When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters
Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, OCTOBER 24, 1885

THE NINTH INTERNATIONAL MEDICAL CONGRESS

Since the meeting of the Committee of Arrangements in New York, Sept 3 and 4, and the final adoption of the Rules regulating the membership and business of the Congress, and the transference of its future management under the Rules adopted, to an Executive Committee of the Congress itself, the expressions of approval in the medical press have been multiplying, and the general feeling of increased confidence in the success of the Congress is apparent throughout the profession The *Medical Times* and *College and Clinical Record*, of Philadelphia, the *New England Medical Monthly*, *Gaillard's Medical Journal* and the *Sanitarian*, of New York, the *Journal and Examiner*, of Chicago, the *Detroit Lancet*, the *Medical Herald*, of Louisville, the *Courier-Record of Medicine*, the *Southern Practitioner*, of Nashville, *Daniel's Texas Medical Journal* the *Southern Dental Journal*, and others, have given the most decided expressions of approval of the Rules adopted and of the present Preliminary Organization of the Congress We quote the following from the editorial in the *Philadelphia Medical Times* as fitly representing the sentiments of all the journals named "The list of appointments and nominations with Dr Austin Flint at the head, is one which, we think, will meet with the endorsement of the profession generally It is seen that when the time for final action came, the members of the Committee, rising to the responsibility resting upon them, acted with marked discretion, good judgment, and an evident desire to discharge faithfully and impartially the duty for which they were appointed It is hoped, the way being now open for harmonious cooperation, that all may unite in striving to secure the success of the Congress, the prospects for which are brighter at present than they have been since the invitation to meet in 1887 in Washington was accepted"

At the quarterly meeting of the Cumberland County, Pa, Medical Society held Oct 6, the following resolution was unanimously adopted "*Resolved*, That this Society endorse the action of the Committee appointed by the American Medical Association, in relation to the International Medical Congress to be held in the City of Washington, D C, in 1887"

We have assurances from several of those whose names have been heretofore announced as withdrawing from all active participation in the Congress "as now (formerly) proposed to be organized," that they are entirely satisfied with the present Rules and organization, and will personally aid in promoting the success of the Congress Not only is there thus a much improved feeling at home, but there is evidence of a better understanding of the affairs of the Congress in, at least, some of the journals of Great Britain The *London Lancet*, of October 3, has an editorial decidedly opposing any attempt to withdraw the Congress from this country, and expressing much confidence in its entire success at the appointed time in Washington, and the *Provincial Medical Journal* has much more in the same direction

In the midst of these general indications of satisfactory progress, it is amusing to witness the progress of that trio of chronic grumblers, the *Philadelphia Medical News*, the *New York Medical Journal*, and the *Medical Record* Being no longer able to find any fault with either the Rules or the *personnel* of the present Preliminary Organization of the Congress, they have suddenly become much concerned for the honor and dignity of the American Medical Association, on account of an alleged declaration of independence on the part of the Executive Committee of the Congress, and they affect to wonder why the Original Committee on Organization did not take the same easy method to free itself from the authority of the Association Their anxiety in this direction, however, is entirely unnecessary The Committee of Arrangements appointed by the American Medical Association, in compliance with the instructions of the Association, has revised the Rules previously adopted, completed the general Preliminary Organization of the Congress on a basis fairly representing the profession of the United States, including an able Executive Committee, and transferred all the further management of the proposed Congress to such Committee Having thus completed the work for which it was appointed, without any signs of rebellion or resolution of independence, that Committee remains ready to render an account of its stewardship at the next meeting of the Association and receive any further instructions that body may see fit to give. But the Executive Committee of the Congress, composed of other men entirely, in accepting the important and responsible positions and duties assigned to them by the Committee of Arrangements, accompanied their acceptance with the condition that their actions, while made in obedience to the Rules of Organization, should not be subject to revision by any other organization, a condition neither inappropriate nor in any degree disrespectful to the American Medical Asssociation, or its Committee of Arrangements. The reason why the Executive Committee of the first Preliminary Organization could not make the same condition or declaration, was because it had been so largely made up of the same individuals as the Committee by which it was appointed that the *personnel* of the Executive Committee of the Congress and that of the Committee on Organization created by the Association, were the same—one and inseparable. Consequently, when the Association exercised its right to re model the Committee on Organization, it disturbed the whole machinery. On the other hand, the present Committee of Arrangements, notwithstanding all the accusations of selfishness and personal ambition heaped upon its members by this same trio of journals, has been patriotic and wise enough to avoid all self-appointments to office, and to give to the Ninth International Medical Congress an independent and self sustaining Preliminary Organization, guided only by Rules sufficiently liberal to allow that freedom of executive action which is necessary to ensure success.

OERTEL'S TREATMENT OF DISORDERS OF THE CIRCULATION.

Within the last year a medical work has appeared in Germany, which has met with such a demand from both the profession and the laity, that a second edition has been issued. The work is of interest to the public mainly, we presume, because it sets forth the author's method of reducing superfluous fat, to the medical man because of its original, and as it would seem highly effective treatment of disorders of the circulatory and respiratory apparatus. So far as we are able to ascertain the work has not yet appeared in this country, either in the original or in translation. However, the *Berliner Klinische Wochenschrift*, No. 33, 1885, contains a digest of its salient points, and for the sake of our readers, we propose to recapitulate a few of its main features.

The work in question is by M. J. OERTEL, of Munich, and is entitled "Therapie der Kreislaufs-storungen, Kraftabnahme des Herzmuskels, Ungenugender Compensationen bei Herzfehlern, Fettherz und Fettsucht, Veranderungen im Lungenkreislauf, etc." The object to be gained by the author's therapeutic measures is the removal or amelioration of the various symptoms which depend primarily upon disorders of the circulatory and respiratory organs, such as cardiac debility, fatty heart, general obesity, valvular disease of the left side of the heart, and impediment from any cause to the pulmonary circulation. These symptoms, such as dyspnœa, sweating, scanty urination with albuminuria, cardiac palpitations with a sense of oppression, hæmorrhagic spots upon the extremities, œdemata, etc., result directly from loss of the normal equilibrium of the circulating fluids, that is, venous plethora on the one hand, and arterial depletion on the other. Death results, in such cases, when not from apoplexy or intercurrent affections, either from secondary disease of the kidneys and dropsy, or from cardiac paralysis. This last again, is the consequence of organic lesions, fatty infiltration or degeneration, atrophy, etc., or, if the cardiac muscle be healthy, it is the result of exhaustion of the heart or of paralysis of its nerve apparatus from overdistension of its cavities with blood.

An opportunity was given Dr. Oertel to test his skill in the person of a physician who had been humpbacked since childhood. Of late the embarrassment to the circulation and respiration, occasioned by the deformity, had greatly increased, in consequence, the author thinks, of corpulence and the habit recently formed of taking about seven times as much liquid into his system as had been his wont. This additional burden, the already hypertrophied heart was unable to sustain and dangerous symptoms followed. The indication then was to reduce the bulk of fluid in the system as well as the superfluous fat. Blood-letting was inadmissable, since it would result in hydræmia, and as the kidneys were in a state of chronic hyperæmia, the water had to be eliminated by the skin and lungs. Accordingly careful experiments were instituted to ascertain the most effective mode of accomplishing this. Accurate measurements showed that the greatest amount of water was eliminated, first, during mountain climbing, secondly, though not constantly, after hypodermic injections of pylocarpine, thirdly, by hot-air baths, and lastly by steam baths. In this way a man of 165 pounds in weight, could be made to lose from a tenth to a fifth of the entire weight of his bodily fluids. At the same time of course a minimum supply of liquid nourishment should be injected, care being exercised that the urine voided, be sufficient in quantity to hold its solid ingredients in solution.

A second indication was to get rid of superfluous fat. This was to be attained by appropriate diet and mode of life. In attempts of this kind the author lays down the principle that care must be exercised to determine whether or not the heart be fatty, since upon its condition must depend the dietary. If the heart be sound, Oertel restricts the daily allowance of food to at least 156 grammes of albumen, forty-three of fat, and 114 of hydrocarbons. If owing to sluggish pulmonary circulation, from any cause, the oxygenation of the blood is inadequate to the consumption of the amount of these carbohydrates, they must be cut down to about twenty-five grammes of fat and seventy of the sugar and starches, while the albumen is increased to 170 grammes *per diem*. In order to facilitate the digestion of so large a quantity of albuminous food, by keeping the digestive fluids as concentrated as possible, he allows no liquid to be taken with the meal and not until an hour and a half subsequently. Furthermore, he found by experiment, that where restricted diet is inadmissible, the fat of the body can be reduced by the amount of water injested. The effect, he thinks, is to invigorate and accelerate the circulation, and to cause the obliteration of vessels supplying the adipose tissue, its nutrition being thus abolished and its elements absorbed. By a series of careful experiments he ascertained the comparative amounts of urine voided and water consumed, and found that, even if the latter be very limited, the former is largely in excess. Contrary to other experimenters he also ascertained that the white of eggs eaten in large quantities does not appear in the urine. Next he tried the effect of mountain climbing in restoring the equilibrium between the venous and arterial systems, believing venous stasis would be overcome by muscular contractions and the increased suction force of the thoracic viscera, on the one hand, while on the other, the pulmonary circuit would be more completely emptied and the arterial system better filled.

By means of Von Basch's sphygmomanometer, Sommerbrodt's sphygmograph and two self registering thermometers, one in the mouth, the other in the axilla, he discovered that in mountain climbing the blood-pressure is at first augmented, soon followed by diminution of the arterial tension and dilatation of the vessels, which effect is perceptible as late as the following day. Owing to the muscular activity, the generation and elimination of bodily heat are increased, thus favoring a more active tissue metamorphosis. The depletion of the venous system is furthermore promoted by the excessive elimination of water by skin and lungs. Observations upon thirty-five perfectly healthy individuals showed but in one instance under the effect of climbing, traces of serum albumen, and in two, traces of hemi albumen in the urine. The effect of preexisting albuminuria was not noted. Oertel is of the theoretic opinion that climbing would exert a beneficial influence upon a heart which, although weak, yet possesses no serious organic disease or degeneration of its muscular elements. In such a case as that of the physician already cited, such vigorous exertion might be hazardous, and experience alone could determine the result. He thinks the effect ought to be to develop an advantageous hypertrophy through the augmented force of its contractions, just as exercise develops any other muscle.

The plan of treatment, the principles of which we have necessarily so briefly stated, was tried upon the physician with brilliant results. By methodical and gradually increased mountain climbing, appropriate diet and lessened ingestion of liquids, the venous stasis was relieved, the pulse became full, slow and regular, and the respiration deep and easy. The heart was evidently reinvigorated. The corpulence was lost entirely, but the albuminuria did not wholly disappear until after three years, and the last vestige of dropsy, not until the treatment had been followed for more than two years. In all, Oertel has treated fifty one cases of disordered circulation after this fashion.

This mode of treatment is one that recommends itself to careful attention if for no other reason, because it does away with the deleterious effects of the prolonged employment of internal remedies which are but too often powerless. It is therefore highly rational, and the patient and physician alike should be consoled for the length of time necessary for this system of therapeutics by the reflection that a chronic disease requires chronic treatment.

ABDOMINAL AUTO TRANSFUSION IN ACUTE POST PARTUM CEREBRAL ANÆMIA

Dr. Robert Koppe, of Moscow (*Centralblatt für Gynakologie*, No. 38, 1885), narrates the history of an interesting obstetrical case, in which abdominal auto transfusion was successfully practiced in acute post partum cerebral anæmia. The patient was a primipara, 24 years old. The abdomen was enormously distended, as the result of twin pregnancy, complicated by pelvic contraction and puerperal endometritis The first child, presenting by the vertex, was delivered after the performance of craniotomy The second child, presenting by the breech, was delivered by energetic manual extraction Although profoundly asphyxiated, the child was resuscitated The placentæ were normally expelled, and the uterus contracted well without the loss of any considerable quantity of blood

The labor seemed to have reached a happy ending, when the woman suddenly became pale, and appeared to be on the verge of collapse No external hæmorrhage was visible,and the uterus was firmly contracted Rupture of the uterus, with the escape of blood into the peritoneal cavity, could be excluded Dr Koppe accordingly concluded that the syncope was caused by the collection of blood in the abdominal venous system Such an hypothesis was logical The taut abdominal parietes of a primipara, the excessive distension of the uterine cavity by twin pregnancy and puerperal endometritis, and the contracted pelvis, were factors sufficient to account for an extreme elevation of intra abdominal pressure The dilated abdominal venous trunks, suddenly relieved of this pressure by the evacuation of the uterine contents, must have received from the systemic circulation a corresponding quantity of blood Literally, "an internal hæmorrhage within the system of blood-vessels" had occurred The cerebral anæmia and collapse were the most striking symptoms of this internal hæmorrhage

Depression of the head, the exhibition of large quantities of port wine and cognac in hot tea, had no effect on the woman's condition On the contrary, the pallor increased, the lips became colorless, and the radial pulse could not be felt As a last resort, an eider-down pillow was placed upon the abdomen, adapted as a compress, and firmly secured by turns of a roller-bandage around the back and sacrum At once, the natural color began to return to the skin and mucous membranes, and consciousness was gradually restored At the expiration of two weeks, the eider down pillow was exchanged for a tight-fitting abdominal supporter

Dr Koppe's method, thus briefly sketched, admits of extensive application Acute cerebral anæmia frequently supervenes secondarily in shock occurring in child-bed It is highly probable that primary acute cerebral anæmia is confused with shock Under these conditions, Dr Koppe's "monster abdominal tampon" might render efficient service

Abdominal auto transfusion may be re-inforced by a method more particularly practiced, at the present time, in the obstetrical clinics of Vienna We are under the impression that the plan was proposed by Esmarch After depressing the head of the patient, and elevating her lower extremities, plain, rubber, roller-bandages are applied, commencing at the toes and extending up to the hips A considerable quantity of blood is thus forced into the blood vessels of the trunk and upper portions of the body

SOCIETY PROCEEDINGS

AMERICAN GYNECOLOGICAL SOCIETY

Tenth Annual Session, held at Washington, Sept 22, 23 and 24, 1885

(Continued from page 445)

TUESDAY, SEPT 22—AFTERNOON SESSION

DR JOSEPH TABOR JOHNSON, of Washington, reported

FOUR CASES OF OOPHORECTOMY, WITH REMARKS

Case 1—Miss M had suffered severely from chronic oophoritis and menstrual epilepsy She was at that time 29 years of age, and had suffered for fourteen years There was constant pain in both ovaries, but most of the suffering was on the left side For two weeks out of every month she was under the care of an attendant Her education had been neglected, and she was in an almost beastly condition She had been under the care of skilful physicians, and almost everything had been tried Oophorectomy was therefore decided upon, and performed August 17, 1882 Both ovaries and one fallopian tube were removed For several months she had no periods and no spasms Gradually her menses returned, and with them the convulsions in milder form She is now menstruating with more regularity than before the operation

Case 2—Miss W, age 21 From being in affluence she had been reduced to the necessity of earning her living Five years before coming under observation she took a severe cold at the monthly period Since then she has suffered from chronic ovaritis She also had leucorrhœa and a displaced uterus, for which she was treated without material benefit I treated her for three months without benefit, and then removed the ovaries She made a rapid recovery and has since been free from pain

Case 3—Miss S, age 24, had been a great sufferer from dysmenorrhœa and reflex symptoms She suffered with burning pain in the abdomen and head for ten days preceding menstruation For several months there had been no flow, but the distressing symptoms continued Both ovaries and tubes were removed She made a rapid recovery and continues healthy

Case 4—Mrs ——, age 40, the mother of three children, had suffered with pain in the left ovary for twenty years She had a lacerated cervix and perneum which had been restored without improving the other symptoms. She had been under treatment for ten years, but was practically bed-ridden for three weeks out of every month. She wished to have the ovaries removed, but I advised her to wait five years longer, until the menopause would accomplish the same result. She, however, insisted on the operation, and I performed it last February. She did well for three days, when vomiting set in and she died exhausted on the sixth day.

The speaker then referred to the great importance of an early diagnosis in such cases in order that the operation might be performed before numerous adhesions had taken place, and before the general condition had become so depressed, referring to the statistics of various operators in confirmation of his statements. He thought that many cases which are now lost from prolonged operations, necessitated on account of the numerous adhesions, might be saved if there were means by which an early diagnosis could be made.

Dr. R. S. Sutton, of Pittsburgh, said that all admitted that a woman with a cystic tumor of the ovary is doomed to death, if the tumor is not removed, but when she is suffering from some disease of the ovary which does not give tangible evidence of its presence, the surgeon has often difficulty in deciding as to the question of operation. It may be that under ether and with bi-manual palpation it is utterly impossible to detect any evidence of disease of the ovaries or tubes, and yet the ovaries may be at the bottom of the trouble. Should the woman be allowed to go on suffering because evidence of a disease that will justify an operation can not be obtained? He remarked that it was better to give the woman the benefit of the doubt and open the abdomen and examine the organs. He did not believe that any one could tell the exact condition of the ovaries before opening the abdomen. He also stated that it has now come to be the practice in obscure conditions in women for which no explanation can be found, and in which it is probable that the ovaries or tubes are at fault, to make an exploratory operation. As a rule exploratory operations are safe. He had yet to open the first abdomen and fail to find disease of the ovaries or tubes. He presented a specimen which he had removed from a woman sent to him for operation for lacerated cervix. There were symptoms which he could not refer to the condition of the cervix. On careful examination he found evidence of disease of the ovaries. He removed both ovaries, one contained a dermoid cyst and the other had undergone cystic degeneration.

Dr. Baker said that this operation opens up a large field of usefulness to the gynæcologist, and of benefit to woman, but there is great danger of the pendulum swinging too far and the operation being performed too frequently. He would not discourage the operation in properly selected cases. An operation which gives such brilliant results in properly selected cases is almost certain to be carried too far. The greater skill shown is in curing these patients without the removal of organs. All will come to a better understanding as to when the operation should be performed and when not, by studying the organ itself very carefully in those cases in which it has been removed. He remarked that in all descriptions of the operation, there should be an accompanying report of the microscopical examination. The question of early diagnosis had been referred to, and this is a matter of the greatest importance. The ovaries and tubes are not the easiest organs to examine. Even where the ovaries are adherent to surrounding tissues it was often extremely difficult to determine this fact. Exploratory operation may be the only way of determining this fact. Where exploratory incision has been made and the organs found healthy, so far as their gross appearance is concerned, he said that they should be put back and the abdomen closed, even if the woman suffers excruciating pain with the menstruation. He believed if the same perseverance and good judgment were manifested in these cases as in others, many of them could be cured without operation. He could not agree with the author of the paper in regard to the increased danger from the presence of adhesions. The only death which he had seen was in a case where there were no adhesions and the operation was performed with ease. In many of the other cases there had been extensive adhesions.

Dr. T. A. Emmett, of New York, remarked that what he had to say was rather in the form of a protest. He was not an advocate of the operation, and he thought that more harm than good had been done by its performance. There are cases where the operation must be done. Where there is salpingitis with the tubes filled with pus the operation is certainly indicated. That the operation should be done, as it frequently is, for the relief of so many symptoms, is, he thought, a reproach on the profession. He could not advocate the opening of the abdomen for the purpose of making a diagnosis. If the diagnosis could not be made beforehand, he did not think it justifiable to run the risk of opening the abdomen. For three years he had been looking for cases in which he considered the operation indicated, and he had seen but two such cases. One was a typical case in which there had been several attacks of peritonitis, following gonorrhœa. He found both tubes as large as his wrist and presenting the twisted appearance described by Tait. The history indicated the existence of pus. He urged an operation, but the patient refused. She was seen by Dr. Thomas, who also recommended an operation. She insisted upon staying in Dr. Emmett's private hospital. He stated that for five months there was no improvement. The treatment consisted of hot water injections, keeping the bowels regular, applications of iodine daily, and attention to the general health. After several months the tubes began to diminish in size, and in the course of a year the accumulation had entirely disappeared and she left the hospital apparently a well woman. The second case was similar. She also refused an operation. She is now no worse, and in some respects better, than she was some years ago.

Dr. Wm. T. Lusk said that great caution must be exercised in the performance of this operation. He had recently seen a lady who had pelvic inflammation following the use of a stem pessary. There is now thickening of the broad ligaments. She visited a gynæcologist, who advised the removal of the ovaries. He could find no evidence of disease of the ovaries or tubes. In many of the operations which he had seen there had been no evidence of disease in the ovaries or tubes removed. He did not condemn the operation. He had operated in four cases in which there was distinct evidence of disease of the tube with good success.

Dr. H. P. C. Wilson thought that many cases have been operated on which should have been left alone, but there are many cases which nothing but this operation will relieve.

Dr. E. W. Jenks was aware of several cases in which the operation had been performed without benefit. Where the ovaries and tubes are diseased, there can be no question as to the propriety of its performance. In many of these cases of so called hystero epilepsy, which are often nothing more than hysteria, he considered the removal of the ovaries and the stopping of the prospect of the patient becoming a mother, a positive wrong. He said the exploratory operation was not free from danger, as he knew of four deaths under these circumstances in which no disease of the ovary was found.

Dr. T. A. Reamy, of Cincinnati, said one woman was sent to him with dysmenorrhœa and hysterical symptoms, with the request that he should remove the ovaries. It was a well marked case. Five months' treatment of the cavity of the uterus, with change in her surroundings and general treatment, resulted in entire recovery. He has had several other striking cases. It is the exception to find the ovary healthy in women after the age of forty. He had been making these observations for ten or twelve years.

Dr. Emmett remarked that the operation is sometimes done for dysmenorrhœa. He thought that it should never be done for this condition. He considered dysmenorrhœa a neuralgic condition, the result of anæmia. When the dysmenorrhœa is relieved by operation, it is because the general nutrition is improved by the removal of the ovaries.

Dr. Sutton said he agreed with Dr. Baker that where, in an exploratory operation, the ovaries and tubes are found to be healthy, they should not be disturbed.

Dr. M. D. Mann, of Buffalo, said that Dr. Emmett had made the statement that dysmenorrhœa is a neuralgic condition, and is not an indication for the operation. Although it may be neuralgic, he thought that the neuralgic condition may become so firmly established that it can not be relieved without taking out the seat of the neuralgia. In two such cases he considered the operation indicated. In one the patient was free from pain only three days of each month. He advised the operation, which was performed by Dr. Clark, of Niagara. The second case was his own. The woman had suffered for a number of years with excruciating pain. The ovaries were enlarged and tender. The whole abdomen was tender. The ovaries were removed and the patient entirely recovered her health. He could not admit that there are no cases of ovarian dysmenorrhœa which can be relieved by the operation, but he thought they were rare.

Dr. Johnson said he did not recommend the operation except under well-marked conditions. He agreed with those who fear that the operation may be performed oftener than necessary. Its use in nervous and neuralgic conditions is not always as beneficial as in some other conditions, as myoma of the uterus, for example.

Wednesday, September 23—Second Day.

The President, Dr. Wm. A. Howard, of Baltimore read the *Annual Address*, entitled

TWO RARE CASES IN ABDOMINAL SURGERY.

The speaker held that all cases, whether successful or not, should be put on record, in order that the knowledge of such affections might be increased. The paper described two rare cases of exceptional interest in which the doctor was completely baffled in the diagnosis, and declined to make one.

Case I.—S. H., negress, age 24 years, married, presented herself at the dispensary of the University of Maryland, April 20, 1882. She was seen by the clinical assistant and the following notes made. Menstruation appeared at the age of 14, and had been regular and normal. She was the mother of five children, the youngest of whom was two months old. She had never had a miscarriage. Some days after delivery, she noticed an enlargement in the lower portion of the abdomen, which gradually extended in the middle line until it reached the umbilicus, and was attended with bearing down pains and frequent micturition. On examination, fluctuation was well marked all over the abdomen, with decided resonance about the umbilicus. There was dulness on percussion and bulging in both flanks. Six weeks later she returned to the dispensary, and at this time, the resonance at the umbilicus had disappeared, and the umbilicus at this time projected. I saw her for the first time two weeks after this observation was made. At this time she was quite sick, the temperature being 102,° the pulse 132, and the respiration 32 per minute. Examination showed the presence of fluid in the pleural sac. There were also some crackling râles heard through the lung. The abdomen was as large as at seven months' pregnancy, and was remarkably protuberant in the centre. There was complete dulness over the entire abdomen, not changed by change of position. There was no evidence of a solid tumor, but it had every appearance of a simple unilocular cyst. Vaginal examination showed the uterus well in front of the tumor, and the sound gave a measurement of two and three fourths inches.

The question which arose was as to the nature of the tumor. Was it ovarian? The extreme infrequency of ovarian tumors in the negro race was against this view. The rapid growth of the tumor was also opposed to this view. The next affection considered was fibro-cystic tumor of the uterus. This is exceedingly rare. The speaker had seen but one such case in the negro. In that case, the cyst was filled with pus The patient was operated upon with a fatal result Such tumors are rare before the age of 35 They usually develop slowly There was no menstrual disturbance in this case For these reasons, fibro cystic tumor was excluded

Was it a parovarian cyst? These usually develop even more slowly than ovarian cysts They are usually flaccid They contain a thin liquid, are comparatively rare, and do not affect the general health This was therefore excluded It was certainly not a case of simple ascites, but was it a case of encysted dropsy, so called, of the peritoneum resulting from simple peritonitis? This is an extremely rare affection, and in the early stages there are symptoms of constitutional disturbance The abdomen is not prominent, and often it is flaccid Encysted dropsy was excluded

Finally, on June 20, I aspirated the cyst under antiseptic precautions The fluid which escaped was of a light straw-color, and coagulated as speedily as blood After aspiration, large masses were readily felt through the abdominal wall The character of the fluid corresponded with that which is said to characterize fibro cystic tumors of the uterus The speaker had, however, seen other cases which showed that the character of the fluid was not pathognomonic In one case of abdominal tumor, fluid was removed which did not coagulate even after being kept for many days The abdomen was subsequently opened and a fibro cystic tumor found In a case of supposed ascites in a man, aspiration was performed and the fluid coagulated quite rapidly After the cyst was aspirated the patient did well for three days, when acute peritonitis supervened, and the patient died on the seventh day

At the autopsy, a mass as large as a child's head was found in the abdomen This consisted of omentum, the transverse colon and small intestine, bound together by inflammatory exudation The inflamed peritoneum was invaded everywhere with miliary tubercles There was no ovarian or uterine disease There was some tubercular ulceration of the small intestine, the other abdominal organs were not affected The pleura was also invaded with scattered miliary tubercles In both lungs there were some tubercles

This, then, was a case of encysted tubercular peritonitis simulating ovarian or parovarian cyst The failure to recognize the true condition was ascribed to want of attention to the previous history of the case and the recognition of the fact that there had been free fluid in the peritoneal cavity at the first visit The speaker then referred to the few similar cases which had been recorded In these cases the disease has appeared, as a rule, under the age of twenty-five years It has progressed rapidly, the length of time varying from six weeks to eight months

Case 2 —F R, age 24, was admitted to the hospital in July, 1883 She claimed to belong to the colored race but looked much like a white woman She had been married one year, but had never been pregnant There was no evidence of uterine disease The abdomen was much enlarged, measuring forty-seven inches just below the umbilicus Vaginal examination showed the uterus pushed forward by a sac containing fluid There was apparently an immense unilocular sac This had been first noticed seven or eight years before The increase in size had been gradual and unaccompanied with pain As to diagnosis, ascites was dismissed both by the physical signs and the absence of any cause to account for such a condition The length of time which the affection had lasted was against its ovarian origin There are, however, exceptional cases in which an ovarian tumor may be present for a number of years, even as many as twenty-four, without requiring operation The length of time which the cyst had been present, the marked fluctuation, and the flaccid nature of the tumor were in favor of a parovarian cyst There was one point against this diagnosis, and that was that although the cyst was flaccid, it could not be compressed below the umbilicus Fibro cystic tumor was readily excluded The history of the case was against the existence of encysted peritonitis The balance of evidence seemed to be in favor of an ovarian or par ovarian cyst

On July 13 the operation was performed It was made largely with the view of exploration The peritoneum was found much thickened and closely adherent to the sac With difficulty the adhesions were separated for a short distance and the cyst presented the appearance of an ovarian cyst A trocar was introduced and forty pounds of a greenish, viscid fluid removed An endeavor was made to enucleate the cyst, but the adhesions were so extensive that this could not be accomplished The cyst was then incised to the extent of the abdominal opening, and in looking into it, it appeared to occupy the whole abdominal cavity, stretching tightly over the spinal column A small portion of the wall of the cyst was removed, a drainage-tube introduced and the opening closed with stitches Peritonitis ensued and the patient died A post-mortem was made, but owing to the doctor's unavoidable absence, was not sufficiently full to throw any more light upon the case than had been obtained at the operation The nature of the cyst therefore remained unsettled

Dr T A Emmet made a few remarks in regard to the difficulties of diagnosis It seemed to him that the older he became and the more experience he had, the more uncertain he was about diagnosis While yesterday he did not favor opening the abdomen, yet when a woman has an abdominal tumor, he favors opening the abdomen to make a diagnosis, because she has something which must come out Rapidity of development can not be depended on He had seen par-ovarian cysts develop in six weeks, and recover after operation He had also seen cases which lasted twenty-three years He had twice opened the abdomen expecting to find an ovarian cyst and had found a fibro cyst About two years ago he saw a case in which he could not make a diagnosis The abdomen was opened and he saw just such a cavity as had been described It seemed as though a cyst had at some time ruptured and its contents had become encysted The cavity was left open, frequently washing it out In six weeks the cavity had greatly diminished Unfortunately the patient died at this time from strangulation of the small intestine. There is no set of symptoms which belong exclusively to a certain condition.

DR. WILLIAM GOODELL, of Philadelphia, had removed tumors the nature of which he does not know to this day. In one case he worked for forty five minutes before he found out what the tumor was. It turned out to be two ovarian tumors which had coalesced, including the uterus between them. He felt more and more the necessity of performing the exploratory operation, for it is impossible to make a correct diagnosis in many of these cases. To illustrate the difficulties of diagnosis, he reported a case which he saw some time ago. A lady presented herself with a solid tumor of the abdomen. There was also metrorrhagia and menorrhagia. He diagnosed a fibroid tumor of the uterus, but the growth was so mobile as to suggest the possibility of a fibroid tumor of the ovary, and he so noted it in his record book. He advised against an operation. The lady went north, and her sufferings became so great that she consulted a distinguished gynecologist, desiring an operation. He wrote to Dr. Goodell, asking his diagnosis. The operation was performed, and a large fibroid of the ovary removed.

DR. T. A. REAMY, of Cincinnati, wished to put on record another case in which a fatal result followed aspiration in tubercular peritonitis. The patient was a man, but it presented all the characteristics of an ovarian cyst. The patient died the second day after the removal of the fluid. There is great difficulty in the diagnosis of these abdominal tumors. In reference to the coagulability of fluid from other sources than fibro cystic tumors of the uterus, he tapped a woman some years ago and obtained a large quantity of pure blood. This coagulated at once. The patient recovered and is still living. He inferred that this was a case of tumor of the omentum.

DR. HOWARD remarked that it was agreed by all that cases often occur in which the diagnosis can not be accurately determined, but in the majority of cases he thought a correct diagnosis was made. The fact that he was able in these two cases to eliminate so many of the ordinary conditions which give rise to these tumors, showed that the physician has the means of making the diagnosis. The object of the paper was to give an accurate account of this case, in order that it might assist others in cases of obscure abdominal tumors.

DR. E. W. JENKS, of Detroit, read a paper on

THE CARE OF THE PERINEUM DURING LABOR.

He referred to the various opinions which had been expressed on this subject. There is a general agreement as to the importance of preserving the perineum. In certain cases, however, from anatomical and pathological conditions, laceration is almost inevitable. He then referred to the various methods which had been proposed, dividing them into two general classes, those which aimed to support the perineum and those which were used with the object of retarding the progress of the head. There is one class, numerically small, who believe that the perineum should be let alone.

The method about to be described he had adopted several years ago and it had given him much satisfaction. He was persuaded that he had saved many perinei through its use. It was recommended for primiparæ and others where the structures were greatly imperilled. During the early part of the second stage the patient is allowed to assume any position she prefers, but when the head begins to distend the perineum, the patient is placed across the bed with the limbs in the lithotomy position, with the exception that the knees are kept close together. This is important. The limbs are held in this position by two assistants. A piece of muslin, or a towel, ten inches wide and forty or fifty inches long, is carried around the buttocks of the patient and over the hemisphere produced by the bulging perineum, with the upper edge on a level with the fourchette, and the ends given to the assistants. They are instructed to make traction during the pain in the manner that the accoucheur may direct. The bandage must be applied smoothly. The direction of the force may be made in any required direction. Care must, however, be taken that the pressure is equally distributed and that the assistants do not simply pull on the middle or posterior part of the bandage, while the anterior portion is left lax.

In order to show that this procedure was based on good anatomical grounds, the speaker next referred to the anatomy of the perineum, illustrating his remarks with diagrams. According to the old descriptions of the anatomy of this region, it was considered that the muscular fibres decussated in the part between the vagina and rectum. Recent observations show that this is not the case, but that the fibres simply meet and a laceration of the perineum divides the muscular fibres transversely, with the exception of those of the transverse perinei. The fibres are simply separated. When the sphincter ani is divided, its fibres are of course divided transversely. The perineum is prevented from laceration by the protection afforded by the tissue below and the integument. The bandage used in the way described affords a supplementary perineum, as it were. By keeping the limbs in the position indicated nature is able to supply tissue for the relaxation of the perineum. When the perineum is bulged the lateral and posterior sulci disappear, and the perineum, with the advancing head, forms almost a hemisphere. The towel is in contact with every part of this hemisphere. The advance of the head may be retarded by making traction on the towel. Where it is accessible, a narrow bed may be used with advantage, the assistants taking their position near the head of the patient.

The use of this bandage avoids any tendency to exciting expulsive efforts from reflex irritation of the perineum, as is sometimes seen where the fingers are used. It is comfortable to the patient and does not cause more exposure than other methods. The bandage may be kept on until the shoulder is delivered, thus avoiding rupture from this cause. In order that this method shall be successful, it is important that every detail shall be carried out with painstaking care. Should a rupture occur, the immediate operation should be resorted to.

(*To be concluded.*)

CHICAGO MEDICAL SOCIETY

Stated Meeting, Oct 5, 1885

The President, C T Parkes, M D,
in the Chair

Dr F E Waxham read a paper on

INTUBATION OF THE LARYNX, WITH A REPORT OF FIVE CASES

The paper was supplemental to one read before the Society on April 20th, in which the operation was minutely described Dr Waxham exhibited a larynx with the tube *in situ* He described the manner of performing the operation, as follows, by the nurse holding the child in her lap, with the hands at the side, an assistant firmly holding the head backward The mouth is held open by a gag placed on the left side between the teeth The tube, armed with a silk bridle, well waxed, is now secured to the introducing instrument The right hand manipulates the instrument, while the index finger of the left hand guides safely and quickly the tube over the epiglottis into the larynx, when the introducing instrument is removed and the tip of the finger presses the tube well down into the larynx We make sure the tube is in proper position by the easier breathing, the tube remaining stationary, and by coughing on the patient attempting to swallow water The bridle of silk is apt to produce violent coughing, and is generally removed The latest improvements in the tubes consist in an enlargement of the head of the tube with a backward curve, preventing the tube from slipping into the trachea and allowing the epiglottis to fall during the act of deglutition There is also an enlargement in the center of the tube, allowing it to be more easily extracted Dr Waxham reported in detail five cases of croup treated by intubation One case recovered, one died six days after intubation from pneumonia, the result of unfavorable surroundings The other cases were not such that recovery could be definitely expected Dr Waxham then presented the history of the five cases in detail after which Dr H T Byford opened the discussion by saying he had the pleasure of seeing the case reported in which there was a complete recovery In the contrast between this operation and tracheotomy there are many points in favor of intubation, and there are not many cases in which tracheotomy is indicated that intubation is not, one of its chief advantages being its simplicity The first case of tracheotomy he had ever performed was a success and gave him a great deal of encouragement, but the next was such a terrible case, and a failure, that he was discouraged He had assisted at several tracheotomies, but the difficulties of the operation, the trouble of overcoming the prejudice of the parents against the operation, and the difficulties and bad results following had caused him to *abandon the operation as of little use except in good cases But when he saw this case, with all the absence of numerous attendants and paraphernalia* in the after treatment, and the comfort and freedom of the patient, he was greatly astonished The simplicity and safety of the operation and the comfort afterwards, the fact that the consent of the parents can be easily and early obtained, that failure to relieve will not bring discredit upon the physician, and that the tube opens in the throat instead of the external air, leaves no doubt in his mind that intubation, whenever it can be successfully accomplished, will supersede tracheotomy in private practice

Dr W E Casselberry said he was in constant attendance on one of the cases which terminated unfavorably, but the effect from the operation was such as to convince him of its utility in many cases In this case the former physicians in attendance had thought the patient had recovered from diphtheria, but the membrane later invaded the trachea The young child was *in extremis mortis* and it was decided tracheotomy would be of no avail, and it was not thought intubation would be much better, but in order to give the child a chance it was done The child lived twenty four hours, and its last hours were comparatively comfortable In this case there was considerable difficulty in the introduction of the tube, and it was a lesson to him that practice in introducing the tube on the cadaver might obviate many difficulties in introducing it on the living subject In the case of this young child, the tube attached to the instrument for introducing it made too short an angle to be easily introduced The idea suggested itself to have a joint in the introducing instrument so as to be able to easily pass the curve of the pharynx The tube caused no cough or difficulty in swallowing, and was easily withdrawn A German physician lately states that in 111 cases of tracheotomy under his control, sixty-three recovered, and an American physician notes twenty cases, of which nine recovered It seems from these statistics that tracheotomy is not to be discarded, but we nevertheless will find a large field for intubation of the larynx Intubation will be preferable in young children not apt to recover from tracheotomy, in diphtheritic cases, and in cases when the friends object to tracheotomy

Dr R G Bogue said I have happened to have something to do with tracheotomy While there are a great many inconveniences attending the operation and the care of the patients, subsequently, there certainly has been a good deal to commend in its performance in many cases The number of recoveries after tracheotomy are not few The gentleman preceding me referred to statistics showing a larger percentage of recoveries than I had happened to know But those who have operated a goodly number of times have good reason, from its success, to resort to it in many cases Intubation is a simple operation compared with tracheotomy, and will recommend itself in many ways, and if it proves to be of equal success in saving life, it should be used in preference to tracheotomy Many reasons arise why it should be used It is not a formidable operation, parents' consent to it can be easily obtained, and the relief obtained by intubation seems as great as in tracheotomy After each tracheotomy there is a period of rest and quiet and apparent promise of success, for a period of twenty-four to thirty-six hours, then an extension of the disease into the deeper air passages, or some complication destroys the life of the patient. The benefit of intubation with only this alleviation is apparent. It is to be hoped after a more extended trial it will prove to be of as much, if not more, service than tracheotomy, and it will commend itself to the profession.

Dr. G. C. Paoli said that Dieffenbach was the first to use intubation in diphtheria and croup, and a Parisian physician tried it at the time, each without the knowledge of the other's experiments. Dieffenbach used an india rubber tube, but he as well as the Parisian physician abandoned intubation. This is a different method, it is true, but it can never be recommended until we have statistics from those having great experience, in hospitals especially, to prove it preferable to tracheotomy.

Dr. D. W. Graham commended the report as being an effort in the right direction. It shows that intubation has some merit, as a means of treating obstruction of the larynx, and that it is destined to become at least a partial substitute for tracheotomy in diphtheritic croup. From a theoretical standpoint it would seem that there would be some liability of these tubes causing œdema of the larynx, if retained in place any length of time, on account of the mechanical pressure on the veins of the mucous membrane. Future observation will show whether they are entirely harmless. However, there does not appear to have been any trouble in this respect in the cases reported.

If this method should become established and recognised, as it now promises, it would and ought to be counted as a new procedure, notwithstanding what Dr. Paoli has said about the efforts of the older surgeons to put the same idea into practice, for whatever has been attempted heretofore in this direction has proved fruitless.

Dr. Waxham, in closing the discussion, in answer to various questions, said the longest time the tube was worn continuously was six days. Dr. O'Dwyer reports two cases, terminating favorably, in which the tubes had been worn ten days. He never found any œdema of the larynx caused by the wearing of the tube. In very young children it is necessary to remove and cleanse the tube. Older children, if not exhausted by disease, will expectorate freely. The previous attempts at intubation in France were not successful, but they were not according to the methods now employed. Trousseau discouraged intubation, and thus French physicians were influenced against it. The tubes must be thin, but their weight is unimportant. He had never found it necessary to use cocaine in introducing the tube, as this operation is generally easily and quickly done.

(*To be concluded.*)

FOREIGN CORRESPONDENCE

LETTER FROM LONDON

(FROM OUR OWN CORRESPONDENT.)

Digital Tenotomy for Pianists—The Lemon Treatment of Bilious Fever—The Death-rate—Ancient Anæsthetics—Prof. Huxley—Hospitals in London—Anisic Acid, the New Antipyretic.

Attention is again being called, by a well known medical man, to the benefit to be derived by those who practice frequently on the piano, harp and stringed instruments generally, by submitting to a surgical operation which consists in dividing the tendons of the ring finger. Pianists are aware that out of the five fingers composing the hand, the fourth one, as it is termed, is the most rebellious in action, being alike the weakest and least flexible of all the others. This feebleness proceeds from the lateral tendons that join the ring to the other fingers, and in a measure paralyze its movements. The operation is simply that of tenotomy. The finger becomes as free as the others, and can work upon the key board or music strings with equal force and facility.

The lemon treatment of biliousness is quite fashionable at present. Most people know the benefit of lemonade before breakfast, but few know that it is more than doubled by taking another at night also. The way to get the better of the bilious system without blue pills and other drugs, is to take the juice of one, two or three lemons, as appetite craves, in as much iced water as makes it pleasant to drink without sugar, before going to bed. In the morning on rising, at least half an hour before breakfast, take the juice of one lemon in a goblet of water. People must not irritate the stomach by eating lemons clear, but diluted properly, so that it does not irritate the throat, and taken on an empty stomach, the improvement is marked.

The following results in the reduction of the death rate are eminently satisfactory, and justify confident anticipations that, by a steady perseverance in dealing with all questions relating to sanitation, the time will soon arrive when we shall have outdistanced all our ancient predecessors, to the great moral and material welfare of the community and the comfort and happiness of all classes of the people. Civil registration was first established in 1838, and the mean annual death rate of England and Wales for the thirty eight years (1838 to 1875 inclusive) was 22·30 per 1000, the mean annual rate for the first eighteen years being 22·42, and for the last twenty years 22·19, an improvement of only ·23. The mean annual rate for the eight years, 1876–1883, both inclusive, was 20·26, the difference between the mean annual rate for the years 1856 to 1875, and 1876 to 1883, showing an improvement of 1·93 per 1000, or an apparent saving of 49,320 lives annually, although as the age distribution of the population has been altered, the number of lives actually saved would be somewhat less. Besides the diminished mortality, it must be remembered that preventable sickness bears a regular proportion to preventable deaths, and if this be estimated at the low proportion of twenty five cases to each death, we get upwards of 1,000,000 cases of sickness annually prevented in the period from 1876 to 1883 had the death rate remained stationary and not decreased in the way mentioned.

Sir Henry Thompson declares there is no foundation whatever for the common notion that a fish diet tends specially to feed the brain. He says, however, that fish is particularly suitable for persons who are unable to take much exercise.

An interesting paper has just been published upon ancient anæsthetics. Abelard, speaking of the creation of Eve from a rib of Adam, speaks of the deep sleep which fell upon the latter as similar to that which physicians produce in patients upon whom they wish to operate. Pliny speaks of a stone of Memphis which, when crushed and treated with vinegar, renders any part to which it is applied insensible to pain, and many old authors speak of surgeons producing sleep in their patients before an operation, by mixing with their food a decoction of the leaves of the root of the mandragora, or some grains of the plant called "morion." Preparations of these two plants, as well as of other narcotics, were employed by surgeons down to the thirteenth and fourteenth centuries, but much less in subsequent times. Opium was also used for a similar purpose, while in the East the anæsthetic properties of hemp have been known from the earliest times. These were all taken into the stomach, but anæsthesia by inhalation was also known. Two different preparations were discovered in the thirteenth century, one by a Dominican of Rome, the other by a surgeon named Theodoric, who was also a preaching friar, and subsequently a bishop. Both of these were prepared from opium, henbane, mandragora, hemlock, and many other plants, and were inhaled from a sponge. It is, however, difficult to believe that preparations so little volatile could produce anæsthesia by simple inhalation. Mons. Perrin, who has studied ancient anæsthetics, has given the composition of a liquid which contained all the ingredients required for chloroform, and it is said that this was applied to witnesses or prisoners who were about to be tortured in the judicial tribunals of the Middle Ages. After inhaling it, the unfortunate subject was plunged into a semi-comatose state, which diminished in a certain degree the pain of the torture. This liquid was always kept in a place adjoining the torture-chamber. Dr. Simpson has the reputation of having been the discoverer of anæsthesia like Dr. Harvey, the reputed discoverer of the circulation of the blood, they were really the men who brought the discoveries practically into use, and pointed out to us clearly and truthfully the *modus operandi* of the circulation and anæsthesia.

It is stated that Professor Huxley is about to retire from his various appointments under Government with a pension of £1,200 a year.

From a recent estimate it appears there are in London sixty-seven hospitals of all kinds. They afford accommodation in beds for 6,588 patients, and on an average 56,493 in-patients occupy these beds annually. The same hospitals make medical provision for out-patients, and 530,564 out-patients are also received. At the present time, many of the London hospitals are financially in a bad way on account of the present great fall in the revenue obtainable from their landed investments. Many have had to close some of their beds, and are now making earnest appeals for funds.

It is stated that a new antipyretic remedy known as anisic acid, formed by the oxidation of oil of anise, closely resembles salicylic acid in its effects.

G. O. M.

LETTER FROM PARIS.

(FROM OUR OWN CORRESPONDENT.)

Ptomaines in Cholera dejecta—Influence of Solar Light on the Bacillus Anthracis and on Vegetation—Prehistoric Skulls at Grenoble—Artificial Fecundation—Two Cases of Hydrophobia.

In a work published last year by M. Gabriel Pouchet, he established the existence of an alkaloidic substance in the dejections of choleraic patients, which was very decomposable and behaved in the manner of a violent poison as regards man and animals. It was interesting to determine, in view of the pathology, the mode of production as well as the rôle of this substance in choleraic manifestations. To enable him to do so, M. Pouchet analyzed broths containing pure cultures of the microbe of Koch, and he was able to establish the presence, though in traces only, of an alkaloid liquid the exterior characters of which (odor, decomposability, toxicity for animals) appeared identical with those of the substance isolated from choleraic dejections. If these results be confirmed the microbe of Koch will really be the pathogenic agent of cholera.

About six months ago M. Arloing addressed to the Academy of Sciences a note relating to the influence which artificial light would exercise on vegetation and the properties of the "bacillus anthracis." At the meeting of the Academy last week M. Arloing gave an account of the results of analogous experiments performed by him with solar light. These results corroborate those obtained with artificial light. Gas light retards the vegetation of the bacillus anthracis. Sun light, in the month of July, destroyed in two hours the vegetative power of the spores of the charbonous bacillus. These facts would not only demonstrate the destructive power of the sun as regards pathogenic germs, but they would add to others already known, to show that the spore is not so resistant as one would be led to believe, and that the attempts at the attenuation of the different viruses in this state are perfectly legitimate.

At the meeting of the Academy of Sciences of last week, M. Arloing submitted another note on the influence of the sun on vegetation, and on the "vegetability" of the virulence of cultures of the bacillus anthracis. In this second note the author makes out that solar light attenuates the virulence of cultures of this bacillus and transforms them into a series of vaccines as surely as heat. Whether the attenuation thus obtained will have the property of self-preservation and of being transmitted by means of generation is a question that M. Arloing intends undertaking to solve. If positive results are obtained vaccines may be prepared during the summer season. Be this as it may, these facts demonstrate that light is a biological agent very important in the world of the infinitely small.

At the last annual meeting of the French Association for the Advancement of Science, which was held at Grenoble, M. Manouvrier made some remarks on the skulls at the museum of that town. The author observed that among the prehistoric skulls found in the grottos of La Buisse and Balmes, three belonging to the bro-magnon type, and two of the type of the Savoyards of the present day This fact tends to demonstrate that from the Robenhausian period, the Savoyard races and those of bro magnon lived side by side in the environs of Grenoble Among the modern skulls to be seen at the museum, there is one of a child which presents a great many points of interest

1 The sagittal suture is completely synostosed from which ordinarily results scaphocephaly but this deformity, which is the consequence of the ulterior growth of the skull in the only direction of its length, had not the time to be produced

2 The superior half of the left coronal suture is equally synostosed From this results an arrest of development of the corresponding region with compensatory arching of the opposite side and prominence of the right frontal protuberance This variety of deformity belongs to the type described by M Manouvrier under the name of "reniform deformity" The difference consists simply in that the synostosis took place, in this case, at the superior portion of the coronal suture, whereas ordinarily it occurs in the inferior portion The deformity which results from this is therefore somewhat modified, which renders this deformity still more instructive

On the 28th of July last, a candidate for the doctorate submitted his thesis to the Paris Faculty of Medicine, entitled "Contribution to the History of Artificial Fecundation" The thesis was rejected, and the examination put off in consequence, much to the astonishment of the candidate and of his friends, as the subject had been treated of in scientific works, and it formed the title of a thesis submitted not long ago at the same Faculty by Dr F Gigon, who obtained his degree without opposition The public newspapers then took up the matter, and as usual published sensational articles for and against the decision of the Examining Board, some declaring that the thesis in question was rejected as being considered immoral Prof Pajot, President of the Board, in a letter published in the *Revue Scientifique*, repudiated the assertion, and stated that the thesis was rejected on account of the subject matter in it having been treated of in a rather unscientific manner A writer commenting on this subject in the same periodical, says that artificial fecundation is an operation that may raise some respectable scruples, the indications of which are exceptional, but which ought to be regarded as one of the greatest conquests of science Already proposed by Hunter, it penetrated, with difficulty, it is true, into medical practice, but now it is taught at the Faculty and described in the most recent treatises on obstetrics and gynæcology, as may be verified in reading over the works of Professors Pajot and Tarnier

About a week ago two children were taken to the hospital at Versailles with symptoms of rabies, to which they both succumbed in the space of a few hours The interesting point in this case is Some years ago both these children, the one a boy aged 11 years, and the other a girl, his sister, aged 15, were bitten by a mad dog, which was immediately killed The wounds caused by the bites were cauterized and nothing more was thought of the cases, when the day before their admission to the hospital they were suddenly seized, at an interval between them of half an hour, with symptoms of hydrophobia, from which they both died within a few hours of each other This example is one of the most remarkable on record, but I think it a pity that the published report does not mention the precise number of years that intervened between the accident and the appearance of the symptoms above referred to, as we should then be in a position to know the exact length of time of incubation

Apropos of hydrophobia, I may mention that M Pasteur is continuing with great perseverence, at Arbois, his retreat in the Jura, his experiments with the view of ensuring to animals exemption from hydrophobia He intends putting his method in practice on his return to Paris, as he is confident that it will also prove efficacious in man Before his departure for Arbois, M Pasteur had under treatment a little boy of nine years of age, brought by his parents from Alsace, where he had been bitten in the haunches, on both legs, and in the hand This child was taken direct to M Pasteur, who, for the first time, applied his method, but whether it be successful or not remains to be seen The accident occurred about three weeks ago A B

DOMESTIC CORRESPONDENCE

LETTER FROM PHILADELPHIA

(FROM OUR OWN CORRESPONDENT)

The International Medical Congress—Dr Shakespeare to go to Spain to Investigate the Cholera—Dr Hamilton's Retention as Surgeon-General of the Marine Hospital Service—The Veterinary Department of the University of Pennsylvania —A good Opening for Young Men

The questions in regard to the proposed meeting of the International Medical Congress, which were the subject of so much discussion when I last wrote, have ceased to be a live issue in this city The action of the New Committee in New York seems to leave nothing to be done but to wait and see whether the European men will come to America under the circumstances or not It is believed here that they will not, at least not in sufficient numbers, to give the meeting an international character It is also thought by some, and hoped by others, who did not approve of all the acts of the Original Committee, that those who have charge of the interests of the Congress in Europe will decide to hold the next meeting in some city there—Berlin is spoken of as most likely This, as one of the most conservative men in this city said to me a few days ago, would be the simplest way out of an awkward dilemma, and would furnish an opportunity for the present excitement of feeling to subside to the advantage of all concerned

I have heard some comment upon the action of the New Executive Committee in New York, on Sept 24, whereby they unanimously resolved that what they were to do was not subject to "revision, amendment or alteration" by the General Committee, which appointed them, or even by the American Medical Association itself It is wondered here whether such a declaration of independence will be tolerated by the Association, when it meets in St Louis, or whether it will send the Committee out to read and reflect upon the opinion of Mr Randall with which their predecessors were put to naught Time alone can show, but the members of the Original Committee are said to feel a keen regret that they did not at the start adopt this easy method "to prevent all further misunderstanding, both at home and abroad "

Perhaps I ought to say a word in regard to the statement which was made in a recent letter to the JOURNAL, by one who wrote from Philadelphia and signed himself "W H P ," that the sentiment of the profession in this city was not correctly represented in my last letter The only reply to this intimation which is called for at present, is to direct the attention of your readers to the significant fact, that the assertion that a considerable number of respected men in this city were of a different way of thinking has not been backed up by the publication of their names If any one who thinks I have misrepresented the sentiment of this city will publish a list of these who agree with him, I think it will only be necessary to place it alongside of the list which I gave long ago, in order to show that what I said was exactly so And I think it will be better for even those who most disapprove of what was done here about the time of my last writing, to hear the plain truth, whether they like it or not, than that they should be misled with flattering pretences

The colleges have now begun their winter sessions, with the prospect of good classes The societies are at work, and I shall soon have pleasant and interesting subjects to write about Already the Pathological Society has had a feather put in its cap by the selection of its president, by President Cleveland, to go to Spain, as the representative of the United States, in investigating the cholera Dr Shakespeare, who is well known as a student of micology, and as a friend and advocate of Koch in this country, has been chosen to investigate the scientific questions raised by the present epidemic of cholera in Europe, and to learn whether any new measures are needed to properly protect this country from its advent here, and whether the present quarantine regulations can be modified with advantage As Dr Shakespeare is a firm believer in the "comma bacillus," it may be relied upon that he will find it if it is to be found in Spain, and the opportunity he is to enjoy of studying cholera on the spot may be regarded as a singularly fortunate, one for him, as it is to be hoped it will prove fortunate for science

It has been with great satisfaction that the professional friends of Dr Hamilton, Surgeon-General of the Marine Hospital Service, have learned that the President of the United States has stepped between him and those who were attempting to displace him from the position which he has heretofore filled so creditably The ground of the President's interference being that Dr Hamilton has fulfiled his duties with zeal and discretion, and with a strict regard for the public interests, is not only a well deserved testimony to Dr Hamilton's faithfulness, but also a cheering evidence of the President's determination to free the medical service of the army and navy from the debauching taint of practical politics When this is connected with his strong wish, which unfortunately cannot be fulfiled, that Prof Agassiz should take the head of the Coast Survey, it seems that we have a President who has a higher idea of the interests of science than to make it a cat's paw to politics

The Veterinary Department of the University of Pennsylvania is now fully opened It has been organized at an expense of about fifty thousand dollars, with Dr Huidekoper, who studied veterinary medicine in Europe, after having graduated in medicine in the University some years before, at its head The buildings now completed are extensive and well suited to their object They are of stone and brick, and extend for more than four hundred feet along Pine street, which passes through the grounds of the University They contain stalls, sweat-baths, foot-baths, a padded cell for lunatic horses, an armory for instruments, forges, lecture rooms, working laboratories, dissecting room, and in fact, everything necessary for studying the diseases of the lower animals under the most favorable circumstances A large part of the building is to be used as a hospital for sick or injured horses, cattle, sheep, dogs, cats, etc

It is hoped that the attention to be given to the study of veterinary medicine in this department of the University, will lead to an advance in the position which this art shall occupy in this country In Europe there are a number of men of high scientific attainments who are veterinarians, and their contributions to the art of healing have a much wider range than that of the class which is especially the object of their study There is no reason why the study of comparative medicine should not receive a new impetus from the association of this new department with the others already existing in the University It is to be hoped also, that the study of veterinary medicine under these auspices, will attract a class of men who are capable of elevating the pursuit to which they are to devote themselves above the level which it has hitherto occupied in this country It is a calling which stands in need of men who will consider it honorable and help to make it so To young men with zeal and perseverance it offers a most promising field of scientific study, as well as an unusually certain road toward a good income It would probably be good for both man and beast, if some of the young men who are now thinking about studying medicine would make up their minds to study animal medicine, in which they would have a clearer field to themselves, and leave a little clearer field to those who are now trying to make a living out of their fellow men

C W D

THE INTERNATIONAL MEDICAL CONGRESS

To the Editor of the Journal

Dear Sir — 'An Old Member of the Medical Profession," in his letter to the JOURNAL of September 19, has sounded a key-note by quoting that part of Dr Flint's "Presidential Address" in Washington in which he urged the American Medical Association, as the only proper representative body of the profession in this country, to invite the International Medical Congress to hold its next meeting in this country

The animus of certain medical journals, among which may be particularly mentioned the *Medical News,* is shown more clearly since the Committee met in New York, on September 3 and 4 In the issue of the *Medical News,* of September 19, is a garbled report of the meeting of the Committee in New York By comparing the report of the Committee as published in the JOURNAL of September 12, and the *News,* of September 19, the conclusion is irresistible that the report has been maliciously garbled and falsified by the *News,* since two Sections are entirely unnoticed by that *representative* of professional purity Again, it may be seen that the Committee only reported, in the list of officers of Sections, the Chairmen of Sections, but the *News* gives a full list, save in the Section on Obstetrics, and *then quotes the following* "Lists of Vice Presidents, Secretaries, and Councilmen for each Section were named by the Committee of Arrangements, but as it was not practicable to ascertain at once who would accept the places assigned to them, or who of those who had been announced in the medical press as declining to accept positions before the present rules and organization had been adopted, as given heretofore, might wish to withdraw such declination, the *final adjustment of these offices was referred* to the Executive Committee of the Congress,[1]" etc

With the exception of the clause just quoted and Rule 1, not a single rule or regulation adopted by the Committee is given or even referred to Perhaps it was scarcely to be supposed that the *News* would comment on or quote the following "It was decided that no person should occupy more than one position in the organization of the Congress" But in view of the fact that this was a part of the report of the Committee, the animus of the *News* will be apparent when we read *its* list and see the same name (in several instances) in more than one position It would be charitable to suppose that the editor of the *News* did not read the full report of the Committee, as published in the JOURNAL of September 12, but this is scarcely credible

Instead of publishing a long list of names, uselessly, as it did, why did not the *News* give the full report of the Committee to its readers? Was it for want of space? The full report would have occupied no more space than the meaningless list which was published Space was not wanting to publish quotations from other journals, at least one of which was published long before the Committee met in New York, another from a recently acquired "New Code" ally, another from a journal which persistently misuses the English language in saying that the invitation to the Congress was not from the American Medical Association, and still another to the effect that "*The Kansas City Medical Record* offers to pay a liberal reward for a germicide that will destroy the microbes that were instrumental in ruining the International Medical Congress and weakening the vitality of the American Medical Association by their onslaught at New Orleans" Had the *Kansas City Medical Record* offered a reward for the microscopic fungi that *attempted* to ruin the International Congress, it need only have applied to the owners of the *Medical News,* seeing that the desired germs are on the salary list of that firm The germicide which would most effectually kill these microbes would be the erasure of their names from that salary list

Finally, evidence is abundant that resignations have been obtained by certain members of the Original Committee (now resigned) solely by misrepresentations, evidence can be produced that the resolution passed in Washington in 1884 giving *existence* to that Committee, was written by a member of the Committee, and that it was the intention so to word it as to take the whole matter out of the hands of the Association, it can be shown that the distribution of at least some of the offices under the Original Committee was done by *one member* of that Committee, without consultation with the others, and it is true and can be proved that a member of that Committee has used every endeavor, and misrepresented facts in order to obtain resignations from the Organization of the Congress, after having given a solemn promise that he would aid the New Committee in every way possible Does the profession of America need anything more to show the animus of certain men who would rule or ruin? Does it need further proof that these are *not* the men who should properly represent the profession of the United States?

AN OUTSIDER

Chicago, October, 1885

---

[1] Italics mine

ASSOCIATION ITEMS

INFORMATION OF IMPORTANCE TO ALL MEMBERS OF THE AMERICAN MEDICAL ASSOCIATION

MEMBERSHIP —Every one who attends an annual meeting of the Association as a delegate pays at that time five dollars, and thenceforward becomes a Permanent Member He continues as such as long as he remains in good standing in the body from which he was originally sent as a delegate As a Permanent Member, he must pay *Five Dollars Annually,* when notified by the Treasurer, whether he attends the meetings of the Association or not Payment of annual dues entitles him to receive the weekly JOURNAL of the Association for one year

MEMBERS BY APPLICATION are such as have not become Permanent Members in the manner above indicated, but apply to the Treasurer for membership, forwarding at the same time to him five dollars and the certificate of the President and Secretary of their State or local society, that they are in good standing in such society They pay five dollars annually thereafter, when notified by the Treasurer Members by application can join the Association at any time, and they receive regularly the weekly JOURNAL

WHEN DUES ARE PAYABLE —The annual dues from Permanent Members are payable to the Treasurer at the time of the annual meeting of the Association, or immediately thereafter. The payment entitles the member to receive the JOURNAL for one year from the following July. Payment for 1885, for example, entitles the member to the JOURNAL from July, 1885, to June, 1886, inclusive.

As some of the members have not yet forwarded to the Treasurer their dues for 1885, they are urgently requested to do so at an early day. Having entered upon another year of membership, they are morally and legally responsible to the Association for the payment of their annual dues, having already received for three months of the new year—1885—the JOURNAL of the Association.

SUBSCRIPTIONS TO THE JOURNAL, from those who are not members of the Association, should be forwarded to the office of publication, 65 Randolph Street, Chicago, and not to the Treasurer; but *all payments of annual dues must be forwarded to the Treasurer, Lock Box 1274, Philadelphia.*

DEATHS.—When a member of the Association, who is in regular receipt of the JOURNAL, dies, his family or other representatives are requested to inform the Treasurer at once of the fact.

PAYMENT OF DUES FOR PREVIOUS YEARS.—As a few members of the Association are still in arrears for payment of dues for 1883 and 1884, they are requested to forward at once to the Treasurer the amounts for which they are indebted to the Association.

TRANSACTIONS OF THE ASSOCIATION.—These annual volumes, thirty-three in number, to 1882 inclusive, may still be obtained, with few exceptions, from the Treasurer, at reduced prices. The Index to these volumes will be forwarded on receipt of *One Dollar*. An opportunity is thus afforded to complete sets of these valuable publications, or to obtain important papers and works which are daily becoming scarce.

RICHARD J. DUNGLISON, M.D., *Treasurer*.
Lock Box 1274, Philadelphia, Pa.

NINTH INTERNATIONAL MEDICAL CONGRESS, WASHINGTON, D. C., 1887.

[The following are some of the more important Rules adopted relating to the preliminary organization of the Congress.—ED.]

1. The Congress shall consist of members of the regular profession of medicine, who shall have inscribed their names on the register and shall have taken out their tickets of admission; and of such other scientific men as the Executive Committee of the Congress may see fit to admit.

2. The dues for members of the Congress shall be ten dollars each for members residing in the United States.

There shall be no dues for members residing in foreign countries.

Each member of the Congress shall be entitled to receive a copy of the "Transactions" for 1887.

3. The Congress shall be divided as follows, into seventeen Sections:

I. General Medicine.
II. General Surgery.
III. Military and Naval Surgery.
IV. Obstetrics.
V. Gynæcology.
VI. Therapeutics and Materia Medica.
VII. Anatomy.
VIII. Physiology.
IX. Pathology.
X. Diseases of Children.
XI. Ophthalmology.
XII. Otology and Laryngology.
XIII. Dermatology and Syphilis.
XIV. Public and International Hygiene.
XV. Collective Investigation, Nomenclature, Vital Statistics, and Climatology.
XVI. Psychological Medicine and Diseases of the Nervous System.
XVII. Dental and Oral Surgery.

4. The General Meetings of the Congress shall be for the transaction of business and for addresses and communications of general scientific interest.

* * * * * * * *

8. The official languages of the Congress shall be English, French, and German.

In the meetings of the Sections, no member shall be allowed to speak for more than ten minutes, with the exceptions of the readers of papers and those who introduce subjects for discussion, who may each occupy twenty minutes.

9. The rules and programmes shall be published in English, French, and German.

Each paper and address shall be printed in the "Transactions" in the language in which it was presented, and preliminary abstracts of papers and addresses also shall be printed, each in the language in which it is to be delivered.

All discussions shall be printed in English.

10. The President of the Congress, the Secretary-General, the Treasurer, the Chairman of the Finance Committee, and the Presidents of the Sections, shall together constitute an Executive Committee of the Congress, which Committee shall direct the business of the Congress, shall authorize all expenditures for the immediate purposes of the Congress, shall supervise and audit the accounts of the Treasurer, and shall fill all vacancies in the offices of the Congress and of the Sections. This Committee shall have power to add to its membership, but the total number of members shall not exceed thirty. A number equal to one-third of the members of the Committee shall constitute a quorum for the transaction of business.

11. The Officers of the Congress shall be a President, Vice-Presidents, a Secretary-General, four Associate Secretaries, one of whom shall be the French Secretary, and one of whom shall be the German Secretary, a Treasurer, and the Chairman of the Finance Committee.

12. The officers of each Section shall be a President, Vice-Presidents, Secretaries, and a Council.

13. The officers of the Congress and the officers of the Sections shall be nominated to the Congress at the opening of its first session.

MISCELLANEOUS

Health in Michigan —Reports to the State Board of Health, Lansing, by observers in different parts of the State, show that for the month of September, 1885 compared with the preceding month, the reports indicate that influenza, typho malarial fever, bronchitis and neuralgia have increased, and that cholera morbus, cholera infantum and diarrhœa have decreased in prevalence Compared with the average for the month of September in the seven years, 1879–1885, intermittent fever, remittent fever, dysentery, typho malarial fever, cholera infantum, cholera morbus, diarrhœa, consumption of lungs, and typhoid fever were less prevalent in September, 1885 For the month of September, 1885, compared with the average of corresponding months for the seven years, 1879–1885, the temperature was lower, the absolute humidity and the day ozone were about the same, and the relative humidity and the night ozone were more

New York State Medical Association —The second annual meeting of this Association will be held in the Murray Hill Hotel, New York City, on November 17, 18 and 19, and at the Carnegie Laboratory on the 20th, 1885 A full and very interesting programme of work is arranged for the four days, with the prospect of a large and profitable meeting John P Gray, M D, of Utica, is President, Caleb Green, M D, of Homer N Y, Recording Secretary, and E D Ferguson, M D, of Troy, N Y, Corresponding Secretary

Lead Poisoning at Sea —The Paris Municipal Laboratory has received a report concerning an epidemic of lead-poisoning which recently happened on a Norwegian vessel coming from Cadiz Several of the crew exhibited symptoms of lead poisoning, and the vessel was put into port in New York The captain and several of his men were sent to the hospital at Coney Island Two men died, the others recovered, after suffering severely The affair was investigated, and it was ascertained that impure drinking-water was the cause of the catastrophe The ship's tank was painted inside with red lead, the water became of a yellowish color The Municipal Laboratory has issued a recommendation to landlords and all persons who have cisterns or water reservoirs that resin or tar, dissolved in turpentine or benzine, should be used for painting them It appears that, in Paris and its suburbs, a great many cisterns are painted with pigment containing lead —*Brit Med Journ*, Oct 10, 1885

To Oculists and Publishers —Having taken charge of reporting for the *Revue Generale d' Ophthalmologie*, edited by Dr E Meyer, of Paris, and Dr Dor, of Lyons, on the progress of ophthalmology in our country, I beg leave to request all authors and publishers of ophthalmic works and papers to send me copies or reprints of their publications, in order to enable me to give the most complete review of the current ophthalmic literature of our country in a periodical of the largest circulation among our profession

Dr M Landesberg

40 W. 34th St, New York

Professor Haeser, senior member of the medical faculty of Breslau, has recently died, aged 72 His best known work is a History of Medicine, which was received with great favor, both in Germany and abroad

Charles Robin, the eminent histologist, died of apoplexy, on October 6, at the age of 64 Since 1852 he had been Professor of Histology at the Faculté de Médecine, of Paris He was made Member of the Institute in 1866

Dr O D Norton, Jr, has received the appointment of Acting Assistant Surgeon in the U S Navy, and is on the U S Steamer Minnesota, Station E, New York

Gazette de Gynecologie is the title of a new medical monthly, under the editorship of Dr D Ménière, of Angers It is published by O Doin, of Paris

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY, FROM OCTOBER 10, 1885 TO OCTOBER 16 1885

Lieut Col B J D Irwin, Asst Medical Purveyor, ordered from Dept Ariz to New York City, for temporary duty in charge of medical purveying depot at that place, relieving Captain Henry Johnson, medical storekeeper (S O 233, A G O, Oct 10, 1885)

Capt Geo W Adair, Asst Surgeon, leave of absence extended one month (S O 232, A G O, Oct 9, 1885)

First Lieut Edward R Morris, Asst Surgeon (recently appointed), ordered for duty in Dept Mo (S O 233, A G O, Oct 10, 1885)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING OCTOBER 17 1885

L B Baldwin, P A Surgeon, detached from Naval Hospital, Philadelphia, and ordered to Navy Yard, Mare Island

D Dickinson, Surgeon, detached from Naval Hospital, Mare Island, and ordered to Training Ship "Portsmouth" as relief to Surgeon A M Moore

A M Moore, Surgeon, detached from Training Ship 'Portsmouth and wait orders

Joseph Shafer, Asst Surgeon, detached from Receiving Ship "St Louis" and ordered to Naval Hospital, Philadelphia, as relief of P A Surgeon Baldwin

Asst Surgeon F A Hester, detached from U S Str "Minnesota" and ordered to the "Tennessee," as relief of P A Surgeon Nelson H Drake

Nelson H Drake, Surgeon, detached from the "Tennessee" 31st inst, and wait orders

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE WEEK ENDED OCTOBER 10 1885

Bailhache, P H, Surgeon, to proceed to Tuckerton, N J, as inspector Oct 7, 1885

Austin, H W, Surgeon, to proceed to Albany, N Y, on special duty Oct 10, 1884

Gassaway, J M, Surgeon, to examine surfmen at Ellsworth, Maine, and other ports of First District, Life Saving Service Oct 9, 1885

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N S DAVIS

PUBLISHED WEEKLY

Vol V | Chicago, October 31, 1885 | No 18

ORIGINAL ARTICLES

THE USE OF THE OPHTHALMOSCOPE IN THE DIAGNOSIS OF BRAIN DISEASE[1]

BY W FRANKLIN COLEMAN, M D, M R C S, ENG

FORMERLY SURGEON TO THE EYE AND EAR DEPARTMENT OF THE ST JOHN (CANADA) PUBLIC HOSPITAL AND PROFESSOR OF DISEASES OF THE EYE AND EAR AT THE BALTIMORE POLYCLINIC AND POST GRADUATE MEDICAL SCHOOL

Our knowledge of the physiology and pathology of the central nervous system is so limited, the diagnosis of brain lesions so difficult, the well known conditions of the eye in those lesions so unmentioned or dubiously mentioned by the text books on medicine, as to afford me some excuse for urging the claims of the ophthalmoscope in the study of the intra ocular end of a brain nerve, during its structural changes which are connected with intra cranial disease As the subject embraces a limited personal experience, I freely admit the testimony of such authorities as Drs Allbut, Jackson, Gowers, and incidentally many others

While the nature of many diseases within the chest and abdomen is revealed to touch and the ear, the maladies of that most inaccessible part of the body—the cranium—give out no certain sound, and will not disclose themselves to any wizard touch, so it remained for the genius of von Graefe and Sichel, the patient and skilful labors of Saemisch, Liebreich, Schweigger, Soelberg Wells, Jackson, Allbut, Gowers, and others, to illuminate with the ophthalmoscope the dawning light, through which men were eagerly striving to discover the connection between amblyopia and intra cranial disease The popular idea that the oculist has, and perchance needs, no knowledge of general medicine to successfully treat the eye, is no less false than the, I fear, professional belief that the general practitioner can gain little from the ophthalmoscope With the herculean task of gaining a fair knowledge of the structure, working, derangement, and repair of the general system, it is not to be expected that even a Hercules could also keep abreast of the information and experience in regard to any special organ Yet, since the whole is made up of all its parts and the parts are inter dependent, and dependent upon the whole, any approach to a comprehension of the whole organic system must involve some familiarity with every part No more striking illustration of this can be cited than the evidence of cerebral lesions that may be elicited by an ophthalmoscopic examination of the intra-ocular end of the optic nerve, called the optic disc or papilla In the pre ophthalmoscopic period (prior to the great invention of Helmholtz in 1851), there certainly had been *something* done to trace in atrophy of the optic nerve, the connection between amaurosis and brain disease, but the ophthalmoscope first revealed an *inflammation* of the optic nerve accompanying brain disease It frequently happens that patients having symptoms of encephalic disease accompanied by perhaps very considerable optic neuritis, which *may not* impair vision, have no disposition to consult an oculist, and while so few men in general practice use the ophthalmoscope, one of the most unequivocal signs of encephalic disease, viz optic neuritis, is frequently overlooked The appearance of the optic disc, the first time I succeeded, with the aid of a mirror and lens, in getting a view of it, struck me as resembling a diminutive cream rose full moon, about the size of a large split pea, rising in a pink sky of surrounding choroid, which, by its contrasting color, gave a well defined sharp border to the disc

The changes in the optic papilla, produced by cerebral disease, are congestion, inflammation, and atrophy The congestion of the papilla may be a simple hyperæmia, if attended by œdema, it is the stauungs papilla of von Graefe, the choked disc of Allbut, or, congestion papilla In optic neuritis, the papilla alone may be affected, in other cases the neuritis occupies the length of the optic nerves, as has been shown in autopsies by Allbut, Gowers, Hulke, Virchow, etc

Atrophy of the disc may be primary or simple, or consecutive to papillitis Authorities are in accord as to the great frequency of optic neuritis in intra-cranial disease Aunuske and Reich collected eighty eight cases of intra-cranial growths with ophthalmoscopic examinations and autopsies, and found ophthalmic changes in seventy-five per cent Tumor of brain is nearly always attended by optic neuritis (Hughling-Jackson) Allbut writes "My own opinion certainly is that changes of a congestive, neuritic, or atrophic character may be found in the discs at some time or other in the course of almost all cases of intra cranial tumor" "From my own experience (Gowers) I should say that optic neuritis occurs in about four-fifths of the cases of intra cranial growths" Also, by common consent, the most fre-great cause of optic neuritis is intra cranial tumor, [illegible] meningitis Cerebral abscess and softening are occasional causes, and hæmorrhage a very rare one Encephalic disease may also manifest itself through paresis or paralysis of the ocular muscles—a paretic squint and double vision

---

[1] Read before the Chicago Pathological Society Oct 12 1885

That optic neuritis may possess diagnostic significance of brain lesion, the extra cranial causes which produce or are associated with neuritis must be borne in mind such as albuminuria, tobacco, alcohol, and lead poisoning, the exanthemata, suppression of the menses pernicious anæmia, loss of blood, exhausting diseases neuralgia of the fifth nerve, tumors in the orbit and in rare cases secondary syphilis (Nettleship) and "it may occur idiopathically without obvious cause Hyperæmia is sometimes the expression of a state of congestion and degeneration of the whole optic nerve, but sometimes limited to the disc" (Gowers) It is frequently the first stage of tobacco amblyopia, the last being atrophy

Choked disc, or hyperæmia with œdema, is the first stage of neuritis, and frequently associated with it Its principal causes are said to be the same as produce neuritis, viz tumors, meningitis and hydrocephalus

Primary atrophy of the disc is more frequently associated with locomotor ataxia than with any other disease Often I have seen it occur without assignable cause, and once from a blow on the eye Galezowski gives a table of 166 cases, embracing the causes of primary and consecutive atrophy

Cerebral causes	40
Locomotor ataxia	33
Traumatic	22
Alcoholism	13
Syphilis	12
Other causes	46
	166

Allbut is of the opinion that primary atrophy is generally due to mischief at the base of the brain—tumor—or to ventricular dropsy, which may compress or sever the nerves or tracts at some point in their course From the evidence of numerous observers and my own experience, I believe tobacco in excess will produce atrophy of the discs, though some deny it To be able to distinguish between a normal and the inception of a pathological appearance of
the papilla, much experience is required, and the
tempt will soon prove the saying "Pathology is
the shady side of physiology" A full-blown neu
may be quite palpable to an amateur ophthal
scopist, while an expert may with difficulty de
as to a slight hyperæmia of the disc, o
pallor is due to incipient atrophy or
ation *The* indication of hyperæmia
redness, which has a tendency to
the disc Comparing the discs ma
and noting whether the redness in
to time,

The signs of *choked disc* and *n*
and vary with the stage In the f
is slightly swollen and red, the ed
may be still distinguished, while
the color of the disc is so blend

surrounding choroid, that frequently it can only be distinguished as the point of convergence of the retinal vessels, which may be here and there concealed by exudation, and there may be hæmorrhage Impairment or loss of sight is the chief symptom in optic neuritis, though there may be marked neuritis without any impairment of vision Pain in the eye is rare, vision usually begins to fail first in one eye, and may fail completely in a few days or decrease very slowly Restriction of the visual field is common, and color vision is frequently defective The neuritis of tumor is double, rarely unilateral, and, it appears, is usually a late production, but in many cases in which the cerebral symptoms are latent in the early stage the ophthalmoscope can give valuable help

Jackson records a case in which a man had had symptoms of cerebral tumor for nine years, during the last three years his discs had been repeatedly examined and found normal, six weeks before death neuritis was discovered He has pointed out that neuritis often coincides in its onset with an obvious increase in the other symptoms of the cerebral tumor

The signs of *atrophy* are pallor, and, later, depression of the disc, with shrinking and absence of the capillaries When the atrophy is marked, there is diminished vision, nearly always more considerable in one eye than the other There is a concentric irregular marginal limitation of the field of vision Frequently color-vision is defective

The *relation* of optic neuritis to intra-cranial disease is still a somewhat vexed question I shall refer briefly to the principal theories Von Graafe gave the first in 1859 He distinguished two cases In one the change in the disc (neuritis) was slight, with a tendency to invade the adjacent retina In this case there was meningitis at the base of the brain, and inflammation of the optic nerve trunk was found by Virchow, which inflammation was assumed to have been communicated to the optic nerve from the inflamed meninges This Von Graefe designated descending neuritis In other cases of considerable swelling, hæmorrhages and vascular distension of the papilla (the stauungs [engorged] papilla or "ascending neuritis" of Von Graefe, the "choked disc" of Allbut, the "papillitis" of Leber), accompanied by cerebral tumor, no signs of inflammation were
ceptible on naked eye examination of the trunk
he o tic nerve This engorged papilla he at-
the tumor which encroached upon the
space, and indirectly pressed upon the
nus, thus obstructing the return of blood
through the ophthalmic vein This
as much weakened when Sesaman
extensive anastomosis of the superior
the anterior facial veins, through
alis retina could empty itself in
of the sinus A case of Mr
no distension of the retinal
hough the sinus was com-
pressure of an aneurism,
nst the theory of obstruct-
eye by pressure on the

The theories of Schmidt and Manz are largely accepted in Germany Manz showed that fluid distension of the vaginal space around the optic nerve is frequent in neuritis, and believed the distension to be due to subarachnoid fluid which is forced into the vaginal space by intra-cranial tumors, and so forth Further, he found that injections into the subarachnoid space of animals passed into the optic sheath, and caused fulness of the retinal veins, and in some cases transient redness and swelling of the papilla Schmidt demonstrated that a colored liquid injected into the sheath, passed into the lymph space of the nerve at the lamina cribrosa, and suggested that neuritis is produced by the irritation of the liquid passing into the lymph spaces

A theory was put forward by Schmidt in 1860, extended by Hughlings Jackson in 1863, supported by Brown-Sequard, and was formulated by Benedict in 1868 It assumes that the tumor acts as a source of irritation, which has a reflex influence through the vaso motor nerve upon the optic-disc, leading to its inflammation

Of these theories, that which accounts for changes in the disc, by inflammation of the meninges propagated along the optic sheath, and finally to the papilla, appears the best supported, by the frequent determination upon post-mortem examinations of the conditions upon which the theory is based Although neuritis may occur in tumor of any size or kind, in any part of the brain, it is rare in tumor of the convexity, while it is common in basilar growths, and most common when the anterior lobes are involved (Russell Reynolds) Again, meningitis limited to the convexity is *seldom* accompanied by intra-ocular changes, while *basilar* meningitis is *usually* attended by neuritis In many cases of tumor a local meningitis in the vicinity of the growth, accompanied by inflammation of the optic tract, has been noticed Now the proximity of this inflammation of the basilar meninges (whether independent, or the result of tumor) to the optic tracts, makes its communication to the tracts highly probable, and the fact of the so common association of inflammation of the meninges and tract increases the probability to a seeming certainty

Time will not allow more than mention of optic neuritis due to hydatid cysts of the brain, to chronic tubercular basilar meningitis, and traumatic meningitis, to general thickening of the cranial bones, and the consequent narrowing of the optic foramina We may also refer to simple atrophy of optic nerve caused by pressure of distended third ventricle on the chiasma, and by concussion of the optic nerve and retina, also to cases of optic neuritis accompanied by intra cranial bruits, several of which have been reported by Dr Holmes In one of these cases an autopsy disclosed an aneurism of the internal carotid

In conclusion, I have selected notes of some hastily reported cases in illustration

Case 1 —Mary L, aged 20, was admitted under my care into the St John (Canada) General Public Hospital July 19th, 1878, with both eyes *stone blind* The blindness of the right eye came on suddenly three weeks previously, and was preceded during the day by severe pain in the brow, which has kept her awake most of the time since Two days before admission she lost the sight of the left eye in a similar manner to the right Patient is very nervous, with slight choreic movements of the arms A year ago had, during three weeks, constant pain in the top of the head, and vomited three to four times daily

She denies syphilis, but two ulcers on the calf of the leg have all the characters of specific sores The eyes at rest both look to the left When the right eye fixes for a near point, the left diverges There is no perception of light, to which the pupils react very imperfectly

Diagnosis White atrophy of both optic discs Probably cerebral syphilis at the base, involving optic nerves Treatment Potass iod, grs x, tr cinchonæ, ʒi, t i d

Aug 8th —The right eye sees the position of the window, no light perception with the left ℞ Hyd perchlor, gr $\frac{1}{12}$, ammonia mur, grs v, tr nucis vom, m x, t i d Discontinue potass iod

Aug 20th —℞ Ung hydrarg, ʒss to be rubbed on alternate days into axillæ and thighs ℞ Pil hydrarg, grs ij, t i d

Oct 12th —No ptyalism ℞ Potass iod, grs v, sp am aromat, ʒi, tr cinchonæ, ʒi, t i d Stop other medication

Oct 22d —Mouth very sore and marked mercurial fœtor Discontinue P I ℞, Potass chlor

November 7th —Right eye no light perception. Left eye counts fingers at thirteen inches ℞ Potass iod, grs x, t i d

April 9th, 1879 —For the past three and a half months strych sulph has been given hypodermically from gr $\frac{1}{24}$ to gr $\frac{1}{8}$, then reduced to gr $\frac{1}{16}$ b d Has had tenotomy of the right internal and left external recti muscles The choreic movements and headache have disappeared Direction of eyes much improved, but they still look slightly to the left The right eye now distinguishes light, and the left reads No 200 at twelve feet Discharged

Case 2 —J K H, æt 53, admitted into the St John Hospital July 5, 1881 He is a muscular looking man, four feet ten inches high, and weighs about 130 pounds During the past year he has had a very dizzy head, and would fall any day, but would soon be able to rise again and walk on The fall was always preceded by giddiness Six months ago he began to vomit about every second day, and soon after vomited every morning, if he laid in bed until 7 o'clock When he rose earlier the vomiting did not come on This continued up to last week, since then the vomiting has completely ceased During the past month has had a pretty severe pain from the forehead to the back of the head, lasting an hour or two daily, and he could not see to read Memory failing for past year Pulse 68, small and rather weak, skin, normal temperature to touch, appetite good, bowels costive, sleeps well, whistles feebly, grasp of hands weak, flexion of fore-arms and legs strong, gait so unsteady he seems in constant danger of falling, patellar reflex normal, no lightning pains, pupils dilated by atropine, right ear hears the quent cause of optic neuritis is intra-cranial tumor, next to it meningitis Cerebral abscess and softening are occasional causes, and hæmorrhage a very rare one Encephalic disease may also manifest itself through paresis or paralysis of the ocular muscles—in paretic squint and double vision

That optic neuritis may possess diagnostic significance of brain lesion, the extra cranial causes which produce or are associated with neuritis must be borne in mind, such as albuminuria, tobacco, alcohol, and lead poisoning, the exanthemata, suppression of the menses, pernicious anæmia, loss of blood, exhausting diseases, neuralgia of the fifth nerve, tumors in the orbit, and in rare cases secondary syphilis (Nettleship), and "it may occur idiopathically without obvious cause Hyperæmia is sometimes the expression of a state of congestion and degeneration of the whole optic nerve, but sometimes limited to the disc" (Gowers) It is frequently the first stage of tobacco amblyopia, the last being atrophy

Choked disc, or hyperæmia with œdema, is the first stage of neuritis, and frequently associated with it Its principal causes are said to be the same as produce neuritis, viz tumors, meningitis and hydrocephalus

Primary atrophy of the disc is more frequently associated with locomotor ataxia than with any other disease Often I have seen it occur without assignable cause, and once from a blow on the eye Galezowski gives a table of 166 cases, embracing the causes of primary and consecutive atrophy

Cerebral causes	40
Locomotor ataxia	33
Traumatic	22
Alcoholism	13
Syphilis	12
Other causes	46
	166

Allbut is of the opinion that primary atrophy is generally due to mischief at the base of the brain—tumor—or to ventricular dropsy, which may compress or sever the nerves or tracts at some point in their course From the evidence of numerous observers and my own experience, I believe tobacco in excess will produce atrophy of the discs, though some deny it To be able to distinguish between a normal and the inception of a pathological appearance of the papilla, much experience is required, and the attempt will soon prove the saying "Pathology is but the shady side of physiology" A full-blown neuritis may be quite palpable to an amateur ophthalmoscopist, while an expert may with difficulty decide as to a slight hyperæmia of the disc, or say whether pallor is due to incipient atrophy or simple decoloration *The* indication of hyperæmia is an abnormal redness, which has a tendency to blur the edge of the disc Comparing the discs may give some help, and noting whether the redness increases from time to time,

The signs of *choked disc* and *neuritis* are similar, and vary with the stage In the first stage, the disc is slightly swollen and red, the edge, though blurred, may be still distinguished, while in intense papillitis, the color of the disc is so blended with that of the surrounding choroid, that frequently it can only be distinguished as the point of convergence of the retinal vessels, which may be here and there concealed by exudation, and there may be hæmorrhage Impairment or loss of sight is the chief symptom in optic neuritis, though there may be marked neuritis without any impairment of vision Pain in the eye is rare, vision usually begins to fail first in one eye, and may fail completely in a few days or decrease very slowly Restriction of the visual field is common, and color vision is frequently defective The neuritis of tumor is double, rarely unilateral, and, it appears, is usually a late production, but in many cases in which the cerebral symptoms are latent in the early stage the ophthalmoscope can give valuable help

Jackson records a case in which a man had had symptoms of cerebral tumor for nine years, during the last three years his discs had been repeatedly examined and found normal, six weeks before death neuritis was discovered He has pointed out that neuritis often coincides in its onset with an obvious increase in the other symptoms of the cerebral tumor

The signs of *atrophy* are pallor, and, later, depression of the disc, with shrinking and absence of the capillaries When the atrophy is marked, there is diminished vision, nearly always more considerable in one eye than the other There is a concentric irregular marginal limitation of the field of vision Frequently color-vision is defective

The *relation* of optic neuritis to intra cranial disease is still a somewhat vexed question I shall refer briefly to the principal theories Von Graafe gave the first in 1859 He distinguished two cases In one the change in the disc (neuritis) was slight, with a tendency to invade the adjacent retina In this case there was meningitis at the base of the brain, and inflammation of the optic nerve trunk was found by Virchow, which inflammation was assumed to have been communicated to the optic nerve from the inflamed meninges This Von Graefe designated descending neuritis In other cases of considerable swelling, hæmorrhages and vascular distension of the papilla (the stauungs [engorged] papilla or "ascending neuritis" of Von Graefe, the "choked disc" of Allbut, the "papillitis" of Leber), accompanied by cerebral tumor, no signs of inflammation were perceptible on naked eye examination of the trunk of the optic nerve This engorged papilla he attributed to the tumor which encroached upon the intra-cranial space, and indirectly pressed upon the cavernous sinus, thus obstructing the return of blood from the eye through the ophthalmic vein This latter theory was much weakened when Sesaman pointed out the extensive anastomosis of the superior ophthalmic with the anterior facial veins, through which the vena centralis retina could empty itself in spite of obliteration of the sinus A case of Mr Hutchinson's, in which no distension of the retinal veins was produced, although the sinus was completely obliterated by the pressure of an aneurism, seems quite conclusive against the theory of obstructed blood return from the eye by pressure on the sinus

The theories of Schmidt and Manz are largely accepted in Germany Manz showed that fluid distension of the vaginal space around the optic nerve is frequent in neuritis, and believed the distension to be due to subarachnoid fluid which is forced into the vaginal space by intra cranial tumors, and so forth Further, he found that injections into the subarachnoid space of animals passed into the optic sheath, and caused fulness of the retinal veins, and in some cases transient redness and swelling of the papilla Schmidt demonstrated that a colored liquid injected into the sheath, passed into the lymph space of the nerve at the lamina cribrosa, and suggested that neuritis is produced by the irritation of the liquid passing into the lymph spaces

A theory was put forward by Schmidt in 1860, extended by Hughlings Jackson in 1863, supported by Brown Sequard, and was formulated by Benedict in 1868 It assumes that the tumor acts as a source of irritation, which has a reflex influence through the vaso motor nerve upon the optic-disc, leading to its inflammation

Of these theories, that which accounts for changes in the disc, by inflammation of the meninges propagated along the optic sheath, and finally to the papilla, appears the best supported, by the frequent determination upon post-mortem examinations of the conditions upon which the theory is based Although neuritis may occur in tumor of any size or kind, in any part of the brain, it is rare in tumor of the convexity, while it is common in basilar growths, and most common when the anterior lobes are involved (Russell Reynolds) Again, meningitis limited to the convexity is *seldom* accompanied by intra-ocular changes, while *basilar* meningitis is *usually* attended by neuritis In many cases of tumor a local meningitis in the vicinity of the growth, accompanied by inflammation of the optic tract, has been noticed Now the proximity of this inflammation of the basilar meninges (whether independent, or the result of tumor) to the optic tracts, makes its communication to the tracts highly probable, and the fact of the so common association of inflammation of the meninges and tract increases the probability to a seeming certainty

Time will not allow more than mention of optic neuritis due to hydatid cysts of the brain, to chronic tubercular basilar meningitis, and traumatic meningitis, to general thickening of the cranial bones, and the consequent narrowing of the optic foramina We may also refer to simple atrophy of optic nerve caused by pressure of distended third ventricle on the chiasma, and by concussion of the optic nerve and retina, also to cases of optic neuritis accompanied by intra cranial bruits, several of which have been reported by Dr Holmes In one of these cases an autopsy disclosed an aneurism of the internal carotid

In conclusion, I have selected notes of some hastily reported cases in illustration

Case 1 —Mary L , aged 20, was admitted under my care into the St John (Canada) General Public Hospital July 19th, 1878, with both eyes *stone blind* The blindness of the right eye came on suddenly three weeks previously, and was preceded during the day by severe pain in the brow, which has kept her awake most of the time since Two days before admission she lost the sight of the left eye in a similar manner to the right Patient is very nervous, with slight choreic movements of the arms A year ago had, during three weeks, constant pain in the top of the head, and vomited three to four times daily

She denies syphilis, but two ulcers on the calf of the leg have all the characters of specific sores The eyes at rest both look to the left When the right eye fixes for a near point, the left diverges There is no perception of light, to which the pupils react very imperfectly

Diagnosis White atrophy of both optic discs Probably cerebral syphilis at the base, involving optic nerves Treatment Potass iod , grs x, tr cinchonæ, ʒi, t i d

Aug 8th —The right eye sees the position of the window , no light perception with the left ℞ Hyd perchlor, gr $\frac{1}{12}$, ammonia mur , grs v, tr nucis vom, m x, t i d Discontinue potass iod

Aug 20th —℞ Ung hydrarg, ʒss to be rubbed on alternate days into axillæ and thighs ℞ Pil hydrarg, grs ij, t i d

Oct 12th —No ptyalism ℞ Potass iod , grs v, sp am aromat , ʒi, tr cinchonæ, ʒi, t i d Stop other medication

Oct 22d —Mouth very sore and marked mercurial fœtor Discontinue P I ℞, Potass chlor

November 7th —Right eye no light perception. Left eye counts fingers at thirteen inches ℞ Potass iod , grs x, t i d

April 9th, 1879 —For the past three and a half months strych sulph has been given hypodermically from gr $\frac{1}{24}$ to gr $\frac{1}{8}$, then reduced to gr $\frac{1}{16}$ b d Has had tenotomy of the right internal and left external recti muscles The choreic movements and headache have disappeared Direction of eyes much improved, but they still look slightly to the left The right eye now distinguishes light, and the left reads No 200 at twelve feet Discharged

Case 2 —J K H , æt 53, admitted into the St John Hospital July 5, 1881 He is a muscular looking man, four feet ten inches high, and weighs about 130 pounds During the past year he has had a very dizzy head, and would fall any day, but would soon be able to rise again and walk on The fall was always preceded by giddiness Six months ago he began to vomit about every second day, and soon after vomited every morning, if he laid in bed until 7 o'clock When he rose earlier the vomiting did not come on This continued up to last week, since then the vomiting has completely ceased During the past month has had a pretty severe pain from the forehead to the back of the head, lasting an hour or two daily, and he could not see to read Memory failing for past year Pulse 68, small and rather weak, skin, normal temperature to touch, appetite good, bowels costive, sleeps well, whistles feebly, grasp of hands weak, flexion of fore-arms and legs strong, gait so unsteady he seems in constant danger of falling, patellar reflex normal, no lightning pains, pupils dilated by atropine, right ear hears the watch only within half an inch, ordinarily loud voice at ten feet, left ear hears the watch only in contact, or ordinary voice at four feet, speech broken, Dutch-English, probably normal, vision, right eye counts fingers at two feet, left eye counts fingers at twelve feet, urine normal Ophthalmoscopic examination shows intense double optic neuritis, with hæmorrhages, and infiltration of retina and discs There is probably tumor of the cerebellum involving the tubercula quadrigemina

June 25th —The left pupil a little small, reacts imperfectly to light Right pupil half the size of left, reacts very imperfectly, percussion on the temples hurts a little, on the forehead less, head twenty-four inches in circumference

July 15th —Last evening and this morning refused to take his medicine, saying there was something in it to poison him

July 24th —Discharged at his own request

Case 3 —Sarah B , æt 36, single, admitted into St John Hospital February 9, 1881 First noticed two months ago that the left eye could not see daylight Three days ago the right eye failed so much as to be unable to read ordinary type Three years since was confined to bed for six weeks with constant, severe pain in the top of the head Was at times very chilly and again very hot and thirsty The head was very hot No vomiting This pain was finally much relieved by the application of iced water to the head, but has been very severe most of the time since, up to the present Memory is failing, and she feels stupid Pulse eighty, weak, sleeps very badly, appetite poor, no history of syphilis, mother and one brother died of phthisis With right eye can count fingers within six inches The left has no perception of light The fundus of the right eye normal in appearance Advanced optic atrophy of the left The atrophy probably neuritic, and the result of meningitis

March 26th —Has been treated with potass iod , potass brom , and hydrarg perchlor and cold water to the shaved head Right disc normal in appearance Discharged relieved of pain, but vision about the same as upon entering Returned to the hospital on August 17, 1881, with headache and nausea The sight of the right eye began, three weeks ago, to get worse, and she cannot now distinguish light with either eye Pupils large and immovable There is now atrophy of the right optic disc as well as of the left Pulse 104, small and weak ℞ Hydrarg sub mur , gr $\frac{1}{6}$ every hour

Aug 20th—Severe pain in the head continues ℞ Potass iod , grs x, t i d

Aug 22d —No pain in the head A prominence noticed over the left frontal eminence (osteoma)

Oct 27th —Discharged with perception of light with right eye only, the head ache absent for several weeks, and the frontal prominence much reduced

Remarks —The prompt relief of the head-ache and the frontal prominence by potass iod points to a specific origin of the atrophy of optic discs in spite of the absence of a syphilitic history

Case 4 —Concussion of the brain, and probably of the retinæ, followed by atrophy of the discs Rev D B consulted me Oct 5th, 1883 Last April was thrown backwards from a buggy, striking the ground with the back of his head After recovering in a few minutes from insensibility, felt nausea The injury did not confine him to the house Since then has had a feeling of pressure on the front of the head, and sometimes behind the eyes Every few nights is sleepless and has tinnitus aurium, "rain like sounds" The sight began to fail a few days after the accident, and in a fortnight he was unable to read Has photopsies Vision, right or left eye, $\frac{1}{10}$ Blueish white atrophy of both discs ℞ Strych sulph , gr $\frac{1}{48}$ t i d ℞ Potass brom , grs xv and repeat p r n in evening The patient was not again heard from

No 70 East Monroe St

A CASE OF SPINAL ATAXIA WITHOUT LOSS OF SENSATION AND WITH INCREASED PATELLAR-TENDON REFLEX A CONTRIBUTION TO THE STUDY OF SPINAL ATAXY[1]

BY MORTON PRINCE, M D

PHYSICIAN FOR NERVOUS DISEASES OUT PATIENT DEPARTMENT BOSTON CITY HOSPITAL AND AT THE BOSTON DISPENSARY

The case of ataxia which I am about to describe is one of exceptional interest and especially so when studied in connection with Dr Smith's very interesting series of cases of hereditary ataxia, with which it has many points of similarity It resembles hereditary ataxia in the age of the patient (15 years) at which the symptoms developed, the absence of anæsthesia and in fact of all sensory disturbances, the presence of anterior curvature of the spine and nystagmus, and the rapidity with which the symptoms developed It differs on the other hand from this form of ataxia in the facts, of the freedom, thus far, of the rest of the family from the disease, and in the presence and indeed exaggeration of the patellar tendon reflex It differs again from ordinary tabes in this last particular, in the presence of nystagmus, in the absence of all sensory disturbances of every kind, of all cerebral, ocular (pareses) and bladder symptoms It may be a question as to where it should be placed, and indeed the presence of the tendon reflex might be thought to exclude it entirely as tabes, but still I am strongly inclined to believe, for reasons which I shall presently state, that it belongs to the systemic spinal ataxias Another and not the least interesting point connected with the case is the bearing which it has on the disputed question of the pathology of ataxia There is still a difference of opinion existing among neurologists as to the cause of ataxia Some holding that it depends purely upon the loss of sensation, (including sense of touch, muscular sense, etc), others that it is a purely motor disturbance due to an impairment of the motor coordinating impulses The sensory theory would be disproved if, as Erb has pointed out on the one hand, cases of complete anæsthesia should be discovered in which no ataxia existed, and on the other if well-marked ataxia should be found with no loss of sensation A few cases of this latter class have already been reported, and one in particular by Erb,[*] which will be mentioned more in detail later In this case there was also complete absence of anæsthesia in every form, while the tendon reflexes were present These cases show that though loss of sensory impulses may possibly by themselves induce the loss of the power of coordinating movements, ataxia must also have a motor origin and probably be due to a disturbance of the motor coordinating tracts The complete overthrow of the sensory theory would be accomplished by the occurrence of a case of total anæsthesia without ataxia

---

[1] Exhibited before the Section for Clinical Medical Pathology and Hygiene of the Suffolk District Medical Society June 9 1885

Mary D , 17 years of age on September 23, 1885 Her present illness is dated by her mother from January 3, 1884, when the girl came home from school complaining of weakness of the legs and malaise She has never been to school since The mother admits, however, that during the preceding two months, the daughter had not felt well, and complained of weakness I first saw the patient in the early summer of 1884, and have examined her occasionally from time to time since As her symptoms have remained, with the exception of one or two particulars, essentially the same during all this time her present condition will be here given, stating at the same time such changes as have occurred in the progress of the disease

Gait, muscular power, etc The patient can hardly walk or stand without the aid of support She habitually uses crutches, and only can be made to walk unassisted after persuasion, when left to herself she easily topples over though she can manage to get across the room It is evident that she has not the typical ataxic gait, but rather scuffs along with her feet, taking short, slow, careful steps She gives at first the impression of having advanced paresis of the legs But further examination showed this view to be erroneous, for when supported laterally so that she cannot fall, she can lower or raise herself on either leg When told to flex and extend her legs against resistance, it is manifest that their muscular strength is good, though I think they are not as strong as normal When, again, lateral support is given to her by placing the hands firmly against both her sides, and her courage is restored, she can raise her feet and walk fairly naturally When walking, or when standing with her heels and her toes together but eyes open, she topples over after a few seconds and must be well balanced to stand at all With her eyes closed she tumbles somewhat more readily She stands and walks with her feet wide apart She does not reel, or pitch in one direction more than another, but rather tumbles like any inanimate thing which has lost its equilibrium In other words there exists *static ataxia*,

There also exists incoordination of the motion of the legs, but in a minor degree When told to describe a circle on the floor with the toe, a most irregular figure results She cannot accurately touch with the toe any small object, but reaches it by moderately zig zag movements It is a question whether more of an ataxic gait would not be shown if she could maintain the equilibrium, and could walk with less caution and more quickly The left leg is more ataxic than the right The hands are also ataxic, the left decidedly, the right slightly This is shown by difficulty in picking up small objects, buttoning her clothes, touching the top of her nose with her eyes shut

Sensation There is absolutely no loss of the senses of touch, pain, or temperature When I first saw her, about fourteen months ago, I thought there was slight diminution of the muscular sense, not very marked, but still sufficient to be detected I am unable, however, to discover any at all She recognizes the slightest passive move of her legs, can accurately locate their position, and can feel the slightest faradic contraction of the muscles Sensation as tested by faradism is also normal There have been no lightning pains or girdle sensations When first seen in 1884, she said she had a slight feeling of numbness in legs, but this has disappeared At that time there was no objective anæsthesia

Reflexes —The patellar-tendon reflexes are not only present, but exaggerated No ankle clonus, the plantar reflexes can only with difficulty be obtained The lumbar reflexes are lively

Muscles —There is no atrophy or rigidity There is no disturbance of the functions of bladder or bowel, no tremor or local paralysis, excepting the possible weakness of legs above mentioned

Nystagmus exists when the eyes are turned to right and left, but none noticeable when the eyes are at rest Last June I did not notice the nystagmus, and do not think it was present at that time I saw it for the first time at the next examination in September

There exists marked anterior *curvature of the spine* in upper dorsal region There have been no psychical symptoms of any kind No vomiting, headach, vertigo (excepting slight dizziness when she attempts difficult feats, and loses her balance

The *eyes* were kindly examined for me by Dr Charles F Williams in June last, and within a few days by Dr O F Wadsworth Both report nothing abnormal in the fundus of either eye As Dr Williams did not observe the nystagmus, there is additional ground for not believing it to be present in June

There is no syphilitic history, and no neurosis in the parents or collateral branches can be discovered Up to date, there have been eight children in the family The youngest is at time of writing only five days old, and one died in infancy Of the other six children, I have personally examined four and found all but the subject of this paper healthy The mother describes the remaining two free from all disease

As Mary D , first complained of weakness in November or December of 1883, she was little more than 15 years old when the first symptoms developed

That the diagnosis in this case is not placed beyond doubt, must be frankly admitted But, it seems to me that it is highly improbable that the case is one of cerebellar disease, in view of the character of the drug, and of the absence of all headache, vertigo, vomiting, convulsive attacks, and the normal condition of the eyes

Of the spinal diseases, the only ones to be thought of are multiple sclerosis and Friedreich's disease

---

[*] Neurologisches Centralbl No 2 1885

On first seeing the case, I was inclined to regard it as one of the multiple sclerosis because of the lively patellar reflex; but now, after watching the case for nearly a year and a half, I believe the lesion will prove to be that of Friedreich's disease. This view is based on the absence of the peculiar tremor of multiple sclerosis, the absence of ankle clonus, local paralysis (especially of the ocular muscles), and of spastic rigidity of the muscles; the absence of all cerebral symptoms, as vertigo, headache, psychical disturbances, etc. Furthermore, it is as difficult to explain the increased patellar reflex by a multiple sclerosis as by a posterior sclerosis; for any lesion of the lumbar enlargement which would cause the ataxia, would abolish the reflex, and if the lumbar enlargement is not involved, the increased reflex is compatible with a posterior sclerosis. This will be referred to again in speaking of the pathology of the disease.

It may be well to recall here the features which distinguish Friedreich's disease from ordinary tabes.[1] In the first place, there is the tendency to attack many members of the same generation, in the same family, while ordinary tabes does not run in families. Then Friedreich's disease attacks early in life, while ordinary tabes is a disease of middle age or of later life. Out of thirty six cases, in fifteen the first symptoms came on at 10 years of age or under, and thirty-two were 20 or under.

In ordinary tabes, pain and anæsthesia are prominent and almost constant symptoms; in Friedreich's form, disturbances of sensibility are usually insignificant, come on late in the disease, and often are entirely absent. Other peculiarities of the latter form, are the rapid extension of the ataxy from the feet to the hands, impaired articulation, nystagmus, and curvature of the spine. On the other hand, many symptoms which are common in typical tabes are absent in the hereditary variety,—such as lightning pains, anæsthesia, disturbances of the bladder, transient paralysis loss of pupillary reflex, optic atrophy, visceral lines, etc. (Omerod). In both, the patellar-reflex is absent. It will be noticed that the symptoms in Mary D's case present a typical picture of the hereditary form, excepting that none of her brothers or sisters have thus far been attacked (all are younger than the patient), and the patellar reflex is present and rather exaggerated.

There is the youth of the patient, the rapid progress of the ataxia spreading to the arms within six months, the nystagmus, the spinal curvature, and the absence of the other symptoms commonly met with in ordinary tabes. Difficult articulation we should hardly expect to meet at this early stage of the disease. The fact that no other case has thus far occured in the same family, will hardly militate against this case being regarded as Friedreich's form of tabes, considering the ages of the other children, and also the fact that a case has already been recorded which stood alone in the family. The absence of sensory disturbances is peculiar to this form of tabes.

As to the retention of the patellar-tendon reflex, it is a significant fact that it is not a very rare thing in ordinary tabes for the patellar reflex to be preserved, and two cases have been observed, one by Ross and one by Erb, in which the patellar tendon reflex was increased. But more than this, the clinical evidence in favor of regarding the case of Mary D., as one of Friedreich's ataxia, (posterior sclerosis), is still further strengthened by three observed cases of ataxia in one, of which *normal sensation* was combined with *normal patellar-reflex*, and in the other two with *exaggerated patellar-reflex*. These cases are so valuable that it will not be out of place to briefly mention them here. The first case is reported by Erb.[2] It was that of a man 52 years of age, who, when he came under Erb's care, exhibited marked and typical ataxia. When he walked side by side with a patient, with typical tabes no difference in the gait could be distinguished. There had been no lightning pains, there was no paræsthesia or anæsthesia of any kind and no girdle pains; the pupils and ocular muscles were normal, there were no bladder symptoms. There were also no cerebral symptoms of any kind. The patellar-tendon reflexes were present. For the same reasons I have given above in the case of Mary D., Erb regarded this case as one of spinal ataxia, though unwilling to commit himself as to the exact lesion of the cord.

This seems to be the place, before giving the other two cases, to speak of Kast's[3] two cases, in which with slight anæsthesia and no loss of muscular sense at all, there was exquisite ataxia, while the patellar-tendon reflex was present.

The first of these cases was one of myelitis from compression following fracture of the vertebræ caused by a fall. There was complete paraplegia, slight loss of sensation, but gradual motor recovery in eight weeks. When full motor power in the legs had returned, ataxia was developed. Both knee jerks were readily obtained, but there was no ankle clonus. The plantar reflexes were active. In the right leg ataxia and loss of sensibility to touch and pain were more marked than in the left, but there was no loss of muscular sense; the sphincters were not affected.

The second case was one of acute transverse myelitis, with complete motor and almost complete paralysis of both legs to touch, temperature and pain. In this case also, on return of motor power, decided ataxia developed, and persisted even after complete return of motor power. The knee-jerk was well marked and there was ankle clonus on left side but not on the right.

In these two cases, a stage intervened between the complete motor paralysis and return of muscular power, in which, with almost complete motor power, there were considerable defects of coordination and ataxia. I have not been able to obtain Kast's original article, and therefore cannot speak positively of the exact amount of sensory disturbances present, but Erb, referring to them, says: "There was the most exquisite ataxy, without very marked disturbance of sensibility, and especially without any loss of the muscular sense."[4]

---

[1] A very excellent digest with a table of all the cases up to date is given by Omerod in Brain, Vol. vii, page 105.

[1] Ross. Diseases of the Nervous System.

[2] Neurolog. Centralbl. No. 2. 1885.

[3] Schmidt's Jachrbucher. 1883. B. 200. Brain. Vol. vii, p. 553.

[4] Neurolog. Centralbl. No. 2. 1885.

The two cases above referred to, wherein normal sensation was combined with increased patellar-reflex, were reported by Seeligmuller[1] as cases of Freidreich's disease They were two brothers whose parents were first cousins, and whose mother and maternal aunt were highly neurotic Both brothers had locomotor and static ataxy, in one the static being predominant In both there was absolutely no loss of sensation, and there existed *increased* patellar-reflex, and nystagmus The plantar reflex was absent in both, the abdominal reflexes were present There was no ankle clonus, and no disturbance of speech

Freidreich, to whom Seeligmuller sent his cases for an opinion, expressed a doubt as to whether they were true cases of his disease, presumably in view of the presence of retained patellar reflex and the presence of psychical symptoms which existed in both, namely forgetfulness and dreamy states in one, and forgetfulness, migraine, dreaminess, and inverted sexual passions in the other But, as Seeligmuller points out, the father, who was otherwise perfectly well, had the same forgetfulness, and, as Omerod remarks, the connection between tabes and paralysis of the insane is well known Even if there should have been some cerebral disease, it would scarcely account for the spinal symptoms It seems to me, all things considered, that Seeligmuller was more likely right

Not the least interesting question connected with the case of Mary D is the seat of the lesions in the cord It is a remarkable fact, considering the grouping of the symptoms, that out of seven autopsies[2] of Freidrich's disease thus far recorded[3] (including the case reported by Kahler and Pick), in six there was found sclerosis, not only of the posterior columns, but of the lateral as well In several there was sclerosis of anterior columns Of these seven cases, the condition of the tendon-reflexes was, unfortunately, noted in only three, in all three the patellar-reflex was absent, though there was lateral sclerosis as well

How are we to explain the absence of all symptoms of lateral sclerosis in these cases on one hand, and, on the other hand, of the presence of the knee-jerk in exceptional cases of ordinary tabes, and of the exaggerated jerk in Seeligmuller's cases and mine? The key to this question I believe is given by the autopsies of other cases of systemic spinal disease, not Freidreich's, in which a combination of systemic lateral and posterior sclerosis existed An excellent digest[4] of these cases has also been made by Omerod, who has collected twenty cases in all Of these, the patellar-reflex was lost in eight and exaggerated in six cases, reported by Strumpell (two cases), Westphal (one case), Raymond (one case), Rabasin (one case), and Dejérene one case Of these, the most instructive was Déjérene's[5] The symptoms were those of tabes, namely slight locomotor but marked static ataxy, *exaggeration of patellar-reflex, ankle clonus*, paresis of legs, anæsthesia and analgesia of the legs, distributed in patches Death from broncho-pneumonia At the autopsy there was found chronic posterior spinal meningitis, atrophy of posterior nerve roots and cutaneous nerves, sclerosis of lateral columns in lumbar and dorsal regions This sclerosis was wedge shaped, the bone reaching the periphery and occupying the posterior part of the lateral columns, but stopped before reaching the posterior bone (wrist cerebellar and crossed pyramidal tract?) The posterior columns were sclerosed the whole length, *excepting in the lumbar enlargement*, which was nearly unaffected

In the other four cases, all of which, however, presented more decided spastic symptoms, the disease of the posterior columns did not reach the lumbar enlargement These cases, therefore, support Westphal's opinion, based on his one case where the spastic symptoms were present, and several other cases where they were not—that if the posterior sclerosis involved the lumbar enlargement, the lateral sclerosis was manifested by paresis only, without rigidity, and the patellar-reflex is absent, but if the posterior sclerosis did not extend into the lumbar enlargement, the symptoms of lateral sclerosis predominate [1]

If the case of Mary D (the subject of this paper), is properly classified as one of Freidreich's disease, we may assume that the disease has not to any great extent involved the lumbar enlargement, and thus explain the fact that the patellar-reflex is not abolished Finally, the exaggeration of the latter may be owing to the same conditions which cause an increased patellar-reflex in transverse myelitis when the lesion is above the lumbar enlargement, or, if we suppose the same anatomical changes to be present which were found in the six autopsies of Freidreich's disease mentioned above, it is possible that the lateral columns are slightly affected This would account for whatever amount of paresis is present

SUN-BLINDNESS[2]

BY C F SINCLAIR, M D,

SURGEON TO THE ILLINOIS CHARITABLE EYE AND EAR INFIRMARY

The danger of blindness from the direct rays of the sun, which appears to have been generally recognized not only by the medical profession but also by the laity of the past generation, is apparently unrecognized to day During the recent eclipse, many might have been seen looking at it with the naked eye It is not uncommon for patients to tell the physician, as a proof of strong vision, that they can look steadily at bright lights, and even at the sun without blinking Children not infrequently undertake competitive trials to see which can gaze longest and most steadily at the sun

In many of the recent smaller works on ophthalmology the subject of sun-blindness is not mentioned Nettleship, Lawson, Williams, Schweiger and De Wecker refer to the possibility of blindness being caused by flashes of lightning, by the bright glare

---

[1] Archiv für Psychiat, etc Bd 10 S 222

[2] This does not include Dr Smith s case

[3] Abstracts of this article will be found in Omerod s Digest.

[4] Brain July 1885

[5] Archiv de Physiolog Nov 16 1884

---

[1] Omerod loc cit

[2] Read before the Chicago Society of Ophthalmology and Otology August 11, 1885

from snow and from a too prolonged gaze at a brilliant artificial light; but the possibility of a like result following from the direct rays of the sun is not referred to. Soelberg Wells mentions the subject, but in the most cursory manner, simply saying that blindness may follow if the eye is long exposed to bright sunlight. He further points out the difference which may exist in the density of the cloud or disk, and which may last only a few moments, days or weeks, or even longer. The prognosis, in his view, appears to be favorable. No reference is made to any pathological condition. The treatment recommended is rest, protection from bright light by suitable colored glasses, cod liver oil and steel. The majority of recent writers, however, have ignored this as a cause of blindness—a cause which, from the carelessness of adults and the ignorance of children, may well be considered one which is most practical and vital.

In a more recent work by Swanzey, of Dublin, the subject is considered at somewhat greater length. He refers to the semi blind spot which appears in the field of vision after exposure, and which, however, may be absolute. In his experience, even in mild cases, this cloud seldom entirely disappears. The ophthalmoscope shows a small bright white spot at the fovea centralis, surrounded by a blood-red ring which fades off into the normal color.

A recent monograph by Deutchmann, of Gottingen, gives us more definite information as to the pathological conditions in these cases. His investigations were undertaken more particularly with that end in view. He cites four cases which came under his care in 1882. In one of these a blue glass had been used in looking at the eclipse; still, the result was the same. In all the cases, immediately after looking at the sun a small cloud appeared in the centre of the field of vision, and examination showed a small central scotoma. Vision was impaired in the same degree in three of the cases, being $\frac{20}{50}$. In one case which came under observation two months after the first appearance of the blind spot, vision had already considerably improved, seeing $\frac{20}{30}$ without difficulty. The finest print, in all these cases, was read with difficulty. In none of Deutchmann's cases were the scotomata complete, and yet in none was perfect vision recovered. Pathological changes were found in all, viz.: a small bright white spot in the centre of the macula lutea, and around this a blood-red ring which gradually shaded off into the normal retina.

To verify these results, Deutchmann undertook a series of experiments on the eyes of rabbits. The direct rays of the sun were condensed by a concave mirror and then rendered parallel by a convex lens. They were then directed on to the retina through the dilated pupil. The resulting appearances were similar to those seen in the human eye; the small central spot of anæmia with the surrounding ring of hyperæmia—these results following an exposure of only a few seconds' duration. An examination with the microscope showed that an extremely small area of the retina was disorganized by "the coagulation of the albumen in its tissues with hyperæmia, exudation, diapedesis of blood corpuscles and pigment disturbance surrounding it."

Based upon these pathological changes, the unfavorable prognosis which Deutchmann gives in these cases would seem to be well justified. The following case, however, which came under my observation the 28th of last March, presents phenomena difficult of explanation if we accept the view that these pathological changes are an essential element in sun-blindness.

Howard D., a lad 13 years of age, looked at the sun several times during the eclipse of last March. Finally, after a somewhat prolonged gaze, he felt slightly dazzled. Then, wherever he looked, objects seemed colored with quickly alternating shades of green and blue. This lasted half an hour, and then disappeared. His vision continued good until 4 P. M. of the same day, when, looking at the snow or sky, he noticed a dark spot in the centre of the visual field. The spot was quite dark and about eight inches in diameter. It was round with a piece taken off the outer side—this piece representing the position of the moon when the eclipse was last observed. It appeared as if the sun had photographed itself upon the retina. Three days later, a dull ache was felt in and around the eyes.

I first saw the patient twelve days after the accident had occurred. He then told me that the cloud had been constantly growing larger and darker. Vision, on this first examination, was $\frac{7}{10}$ in both eyes. The ophthalmoscope showed no discoverable morbid change in the fundus. The disk, the vessels and the retina all appeared in normal condition.

Subcutaneous injections of strychnia, together with the use of the constant current, were begun. The beneficial effects of this treatment were seen four days later, when the cloud had become less dark and impenetrable, and the outlines of letters representing normal vision, or $\frac{10}{10}$, could be made out within its area. Still four days later, the patient returned to school and attempted to go on with his studies. This resulted in a relapse to $\frac{7}{10}$ vision and an increase in size and density of the scotoma, with a return of the dull aching pain in the eye. April 9, $\frac{10}{10}$ vision was again reached, but the letters could only be deciphered separately after closing and resting the eyes.

April 14.—$\frac{10}{10}$ could be seen clearly for 3".

By April 21, in the R. E., 12" were counted before the cloud came, and even then $\frac{10}{10}$ could be read through it. In the L. E., 6" elapsed before the cloud developed, and through it $\frac{10}{10}$ could be seen only indistinctly.

April 28, a week later, 20" in the R. E., and 10" in the left, indicated a continued improvement.

May 4, the strength of the retina had increased to 28" in the R. E., and at the end of that time, what the patient described as a simple blur came, and $\frac{10}{10}$ could be easily read through it.

May 13.—The R. E. had reached 43" and the L. E. 25", and only the upper half of the test-types was obscure. At this time, owing to considerable swelling and soreness over the temples, the injections of strychnia were suspended, when the strength of the affected portion of retina rapidly deteriorated to 32″ in the R. E. and 15″ in the left. The subcutaneous injections were again commenced, with an improvement in four days of 11″ in the R. E. and 22″ in the left. This improvement was gradual until June 2, when 66″ in the R. E. and 46″ in the left were counted before the development of the scotoma, which at the same time had diminished much in size and density. At this time the patient withdrew from treatment.

The fact that this case, after several exposures, presented no discoverable pathological changes, together with the constant improvement until 66″ was reached, during which time no evidences of the scotoma were manifest, justify the conclusion that in these cases of sun blindness the lesion may be much less serious than that indicated by Deutchmann—being rather of the nature of a paralysis than that of the disorganization of the retinal elements, and, consequently, that the prognosis as to the ultimate recovery of perfect vision is not necessarily unfavorable.

MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS

Hydrobromate of Hyoscin.—Dr. Archibald Church, of Elgin, Ill., in a short article on this subject, says that in sthenic acute conditions, or violent manifestations arising in the course of chronic insanity, hydrobromate of hyoscin has notably and promptly lessened the excitement, and in the frenzy of melancholia has mitigated the outbreak in cases where it has been tried in this hospital. While not doubting that its continued administration in small and often repeated doses will disarrange alimentation—and what powerful drug does not?—it has yet rendered signal service in tolerably full doses, $\frac{1}{40}$ grain, given when specially indicated, without producing any untoward symptoms whatever. By watching its action upon others, and upon myself, in varying doses, it did not seem advisable to give it in a more routine manner than one does morphia or atropia in parallel cases, and, so far, more than two doses of $\frac{1}{40}$ grain have not been used in twenty four hours.

By careful sphygmographic observations it is clearly shown that minute doses—$\frac{1}{150}$ to $\frac{1}{100}$ grain—of the hydrobromate are stimulant of cardiac action, and thereby of the mental processes and attendant manifestations, not only among the insane, but in a condition of health. With a larger dose—$\frac{1}{40}$ to $\frac{1}{20}$ grain—this also is the primary result, but as more of the medicament comes into operation, it is followed by a slowing of the pulse rate and by a diminution of the cardiac curve of the tracing, sometimes to such an extent that a bruit of dicrotism appears. A feeling of fatigue, or rather of comfortable weariness, if you will permit such a term, is now associated, and one gives up readily to feelings of drowsiness, sleep following naturally. After using the drug in $\frac{1}{40}$ grain doses for from six to ten consecutive nights, with an average of six hours' sleep, for instance, its discontinuance has been followed, but only after several nights, by wakefulness, which again gave way to the remedy. In some instances of confirmed insomnia, or rather of often disturbed sleep, after securing a few nights' good rest the patient has rested fairly well, the habit of waking at certain times being broken, and in general the effect of the drug is lasting. When given by the mouth, as was pointed out in the article above referred to, its action is slow, and there is considerable variability as to the amount required by different patients. Although no notable depression has come under observation from the use of the drug in such doses as are indicated above, it no doubt is capable of producing stupor just as does hyoscyamia, which doubtless in the amorphous form contains it largely, but which is associated with little danger, according to a recent writer in the London *Lancet*, who gave unhesitatingly ½ grain, and even ¾ grain of Merck's preparation, producing coma, etc.

It may be not uninteresting to note that hyoscin is a very active mydriatic. It was found that two drops of a solution $\frac{1}{10}$ grain to the ounce of distilled water produced complete dilatation of the pupil and paralysis of the accommodatory muscles in about five minutes, and that it was more active to stretch the adhesions in a case of posterior synechia than the repeated instillation of a solution of atropia sulphatis three grains to the ounce. The mydriasis so produced is very persistent, lasting from five to ten days, and the use of the solution is not attended, as far as observed, with any conjunctival irritation, which will suggest its value to oculists where the long continued action of a mydriatic is required.

From the little learned concerning the drug, it would seem to be of use in conditions of intensified nerve action, especially of cerebral origin, to meet acute manifestations.—*Med. Record*, Oct. 10, 1885.

MEDICINE

Hydatid Cysts of the Base of the Skull.—M. Odille reports the following interesting case which came under the care of M. Bucquoy. A man, 43 years of age, had been subject for three years to intense cephalalgia, which was constant and extended all over the head. He did not vomit, and had never had convulsions. At times there were lancinating pains down the side of the face. For two years there had been some feebleness of vision and deafness on the left side. Two months before entering the hospital he noticed a tumor on the left side of the neck, and which increased steadily in size. Some weeks later he expectorated something very much like raisin seed, a dozen of these being expectorated in one morning. He then entered the hospital, and the nature of the tumor was established beyond doubt; it was an hydatid tumor, starting from the base of the skull, making a track for itself in the soft tissues of the neck, and pressing on the cranial nerves in the vicinity. There was almost complete prolapsus of the upper eye lid, and paralysis of the external and inferior recti of the left eye. There was dimness of vision on the same side. The muscles of the face were somewhat retracted, the contracture of the left masseter giving rise to some opening of the mouth There was anæsthesia of the left side of the face, and of the buccal and nasal mucous membranes There was no trophic trouble.

The tumor continued to grow, and took on a somewhat phlegmonous appearance It was opened, and a small quantity of pus and a large number of hydatid vesicles escaped Other vesicles were removed at intervals, after which the wound cicatrized The motor troubles persisted, but the sensibility was restored completely on the left side of the face

M Odille refers to the rarity of hydatid cysts of the base of the skull, to the absence of definite symptoms other than those of other tumors of that region, save in the cases in which vesicles are expelled by the nasal fossæ after the appearance of the tumor at the surface He thinks that an exploratory puncture is indicated whenever an hydatid tumor is made out in the temporal or mastoid regions —*These de Paris*, No 377, 1884

EXTRACT OF WILD CHERRY BARK AND CHLOROFORM INHALATION IN STRYCHNINE POISONING —DR GEORGE M KOBER, U S A, reports a case of strychnine poisoning in a Chinaman The symptoms were well pronounced, and after washing out the stomach he administered a tablespoonful of the extract of wild cherry bark, and repeated the dose in twenty minutes, the tetanic paroxysms diminished in frequency and force, and were readily controlled by the inhalation of chloroform The alarming symptoms in the case lasted, however, nearly two hours, yet there was evidence of progressive improvement, and the immediate effect of the wild cherry pointed to an antagonistic action After the expiration of two hours, the only remaining symptoms observed were involuntary twitches and a feeling of stiffness in the muscles, for which potass bromide and chloral were given with good effect, fifteen grains of the former and ten grains of the latter soon induced rest and sleep for a few hours The patient recovered perfectly in two days, complaining only of being tired during this time

His reason for not publishing the case before, was the insufficient evidence of the fact that the extract of wild cherry bark proved absolutely antagonistic to the action of strychnine The stomach had been thoroughly evacuated, the quantity of the poison introduced was unknown, and the effects of chloroform inhalation cannot be overlooked

He has seen in recent years no authority of weight for the use of hydrocyanic acid in strychnine poisoning, but the subject is sufficiently important to experiment on animals and thus determine whether the extract of wild cherry bark possesses advantages over prussic acid —*Medical News*, Sept 26, 1885

THE RELATIONS BETWEEN DISEASES OF THE ABDOMEN AND THOSE OF THE RIGHT HEART —Since the work of Potain in 1878, and the researches of Tessier and Franck in 1879 and 1880, this question has received little attention Passerini now cites three cases of tricuspid insufficiency consecutive to a peritoneal effusion Auscultation showed a prolongation of the first sound and a murmur, the second sound being found strengthened toward the pulmonary orifice The disappearance of the effusion was accompanied by the disappearance of these sounds Passerini believes the cause of these cardiac alterations to be purely mechanical, the compression of the addominal viscera provokes venous anæmia, and engorgement and hyperæmia of the thoracic organs In favor of this explanation we have the observations of Larcher and of Depaul in pregnancy These writers have noted the accentuation of the first sound toward the pulmonary orifice, at the same time that it is prolonged at the level of the base of the xyphoid cartilage The same observation has been made in two cases of ovarian cyst, and in another of large abdominal tumors, and finally, this same modification of the first sound at the pulmonary orifice can be produced by simple compression of the abdominal wall —*Revue Bibliog des Scien Med*, July 31, 1885 —*Medical Record*, October 10, 1885

TWO CASES OF HERPES WITH MOTOR PARALYSIS —DR G WALLER communicates to the *Weekblad* of Amsterdam, notes of two cases of herpes, in which motor nerves were affected A widow-woman, aged 68, had a painful patch of herpes, covering the whole of the right side of the face, stopping abruptly at the middle line After some weeks, the herpetic spots and the pain disappeared, being, however, replaced by paralysis of the same side of the face, with loss of taste on the right half of the tongue The other case was that of an old man, who had a herpetic eruption situated on the anterior aspect of the upper arm on the right side, this was accompanied with severe itching and a pricking sensation Eight days after the appearance of the eruption, he found himself unable to raise or extend the arm There was no pain or swelling in the muscles or joints, and the electrical reactions were normal The herpes and the paralysis both indicated the circumflex and musculo-cutaneous as being the nerves affected The treatment was electrical, and brought the case to a successful termination —*Brit Med Jour*, Sept 19, 1885

RECOVERY FROM LEPRA TUBEROSA —At the recent meeting of the Medical Congress at Wiesbaden, P G UNNA, of Hamburg, reported the case of a woman, 38 years of age, a native of Germany, who had lived fifteen years in Brazil, and had acquired a case of leprosy in an unknown manner It was a pure case of lepra tuberosa, without anæsthesia, extending over the face, arms, legs, and a portion of the trunk She was under treatment in Unna's clinic for four months, and at the end of that time she was cured She was treated with pyrogallol, resorcin, chrysarobin, and sulph-ichthyolate (?) of ammonia A concentrated ointment (10 per cent) of chrysarobin and resorcin acted very well against the nodules, the ichthyol only feebly, while the pyrogallol caused the formation of vesicles During the last three weeks of her stay in the clinic the treatment was mainly directed towards removing the pigmentation and the cutaneous deformity, which was done by a plaster of mercury, carbolic and salicylic acids —*Gazzetta degli Ospitali*, October 7, 1885

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE
PER ANNUM IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO, ILLINOIS

SATURDAY OCTOBER 31, 1885

THE REDUCTION OF SUPERABUNDANT FAT

In this country the ceaseless activity of both brawn and brain and the nervous temperament of the people, together perhaps with certain climatic influences, are antagonistic to the accumulation of superfluous fat In Germany, on the contrary, and to a minor extent in England, where the conditions of life are less wearing, a tendency to corpulence is not uncommon The people are phlegmatic, and although their struggle for existence is more severe, perhaps, owing to fewer possibilities, it is not characterized by that spirit of haste and rush which in the United States makes life an exhausting race The habitual consumption of large quantities of malt liquors in Germany is also of influence, doubtless, in the production of adipose tissue It is not strange, therefore, that the reduction of superabundant fat should have first received scientific consideration in Great Britain and Germany, and that in the latter country at the present time the safest and most efficient methods for its accomplishment are being earnestly discussed

The principle underlying the various anti-fat treatments is to limit the diet almost exclusively to nitrogenous food, while at the same time sedentary habits are exchanged for a life of exercise in the open air Although agreeing in principle, the various systems now in use differ as to the proportion between the nitrogenous and non-nitrogenous food allowed Before mentioning these differences, however, it may be well to state briefly the rationale of this treatment and the dangers to be avoided With reference thereto we shall transcribe the remarks of Dr J Munck from an article by him in the *Berliner klinische Wochenschrift*, No 13, 1885 Experiments, made to ascertain the metabolic changes which take place in the nitrogenous elements of the animal organism, have taught that the metamorphosis of the albuminous tissues depends, aside from the amount of albumen consumed, upon the condition of the body as respects fat That is to say, the greater the amount of adipose tissue, the less is the quantity of nitrogenous food required to maintain an equilibrium in the metabolism of its albuminous elements, or in other words, to keep repair *pari passu* with waste If, therefore, more albumen be furnished than is required to maintain this balance, it is stored up in the system and the blood is enriched greatly to the benefit of anæmic conditions

On the other hand, if the non nitrogenous food be reduced until the nitrogenous can no longer hold tissue waste in check, the needs of the system are met by the consumption of the stored up fat In consequence, therefore, of the absorption of the adipose tissue, the amount of albumen, which once supplied the requirements of the body, no longer suffices and it should be somewhat increased So also should be the quantity of the hydrocarbons, else the consumption of the body's fat will be too great and react deleteriously upon the general nutrition Hence, the danger in attempting to reduce obesity by restricting the dietary to one that is chiefly nitrogenous, lies in following it out too long as a routine It is only suitable to the first few weeks It may be further stated, that as respects their ability to limit the destructive metamorphosis of the nitrogenous elements of the body, sugars and starches exert an effect equal to that of corresponding amounts of fat, whereas, in checking the consumption of the adipose tissue, one part of the latter in the food is equivalent to two and four-tenths parts of the former

With the foregoing facts as a basis, the proper proportion of the ingredients of the dietary must now be determined, and here, as will be seen, the various methods depart quite widely Chambers appears to have inaugerated the regiminal treatment of obesity in 1850, by excluding all fat from the diet and restricting the amyloid articles He also limited the consumption of liquids In 1863, Dancel announced his method, according to which bread, potatoes, beans, other vegetables and fruit, in all to the amount of 500 grammes were allowed in addition to plenty of meat, also fluids from 500 to 1250 grammes These were soon eclipsed, however, by the Banting system, announced in 1864 This dietary consisted of 500 grammes of lean meat, 80 of toast, 50 to 100 of fresh fruit, a small quantity of vegetables excepting potatoes, tea without milk and sugar, and four to seven glasses of strong wine, equivalent to 170 grammes of dried albumen, ten of fat and eighty of sugar and starch. Upon this diet Mr. Banting lost about thirty-five pounds (sixteen kilos) of his weight in nine months, and reduced his girth about half a yard. The results of this system, which by the way had been suggested by Dr. Harvey, were so brilliant as to make it widely popular. It was soon found, nevertheless, to have serious drawbacks. The allowance of albumen was so out of proportion to the hydrocarbons that individuals who adhered to it closely, speedily complained of general malaise, nervous excitability and sleeplessness, while the consumption of so much meat set up an obstinate catarrh of the stomach and duodenum, as well as other dyspeptic disturbances. To obviate these dangers, Dr. Ebstein adopted a regimen composed of 100 grammes of albumen, 85 of fat and 50 of amyloid food together with 1750 of fluids. His daily bill of fare comprises 300 grammes of meat with rich gravy or rich soup, 80 grammes of buttered toast, a few vegetables with fruit morning and afternoon, and tea without milk and sugar. This dietary certainly accomplishes its purpose, but Munck thinks is not wholly devoid of some of the dangers of the Banting system. Voit, of Munich, again advises a daily regimen containing 118 grammes of albumen, 40 of fat and 150 of sugar and starch, and thus differs very materially from Ebstein.

Finally, Oertel, also of Munich, has recently come forward with still another proportion between the albumen, fat and amyloids. As was mentioned in a previous editorial article, Oertel's plan is varied according to conditions of the circulatory apparatus. In one group corpulence is associated with healthy heart and blood vessels, in the other, the heart has undergone fatty degeneration and the hydrostatic equilibrium is lost. In the first class the object is merely to reduce the fat, while in the second this is to be united with the therapeutic management of the case. In the one, vigorous exercise is enjoined and enough carbon must be supplied to stimulate the bodily energy. In the other, effort is made to build up the atrophic muscles by giving enough albumen to favor its accumulation, that is, its transfer into the nitrogenous elements of the organs.

The hygienic management of these cases has been previously detailed and need not be repeated. For the majority of cases, Oertel recommends a small cup of coffee, with milk and sugar, morning and afternoon, and with the morning coffee 35 to 70 grammes of white bread with butter, at noon no soup, but 200 grammes of beef, 50 grammes of lettuce or the like, and 100 of fresh fruit, for supper, some caviar, two eggs, 150 grammes of meat and 150 to 200 grammes of light white wine. Later, when a portion of the bodily fat has disappeared and the circulatory disturbance is relieved, the daily dietary may be increased by adding 100 grammes each of fish and pudding to the dinner, as well as 200 of wine, and to the evening meal some cheese and bread. Nevertheless, this increased allowance is only admissable when by hearty exercise, preferably mountain climbing, the consumption of carbon is augmented and the system requires more nourishment. In conclusion it may be said that Oertel's daily regimen consists of 155 to 170 grammes of albumen, 24 to 40 of fat, 70 to 110 of sugar and starch, and 900 to 1300 of fluids.

SPORT VERSUS SCIENCE

"The red deer intended for sport with her Majesty's staghounds during the ensuing hunting season were captured yesterday in Windsor Great Park. By noon a score of splendidly antlered stags had been run into the paddock. The gates were closed and stout nets placed across the meadow, round which the deer were driven several times until they had entangled themselves in the meshes and rolled over and over in their efforts to escape from the toils. They were secured by the park laborers, and, having been denuded of their horns, were pushed into wooden boxes and conveyed in farm carts to Swinley Paddocks. Forest hunting will now be commenced by the Queen's buck-hounds, which during this month are expected to meet Tuesdays and Fridays at the Royal Hotel, Ascot. The pack is under the control of the Marquis of Waterford."—*London Standard*, Oct. 6, 1885.—*Chicago Tribune*.

Sir Joseph Fayrer asserts that in India 20,000 human beings die annually from snake bite, but as yet no antidote to the snake-poison has been discovered. But when Dr. Lauder Brunton began a series of experiments to isolate the poison, find out its nature, and search intelligently for its antidote, his work was stopped by the antivivisection laws of England. And with a consistency that is peculiarly charming, the British Government, whose own laws prevent such work in its own country for the benefit of its own subjects, has furnished cobra poison to Drs. Weir Mitchell and Reichert, of Philadelphia, in order that they might make the experiments in America which Dr. Lauder Brunton was forbidden to make in England. So also, when but recently Sir Joseph Lister, the promulgator of the new science of surgery, wished to make some experiments on animals to further perfect surgical methods, he was compelled to leave enlightened England and pursue his studies in "revolutionary France "

In England to day it is a crime to kill or even to use a mouse in the interests of humanity The mouse may be poisoned, or it may be turned over to a terrier to be tortured to death, and nothing is thought of it Hunter's experiment on a deer would be a crime in England to day, unless the experimenter could obtain a license, which would very likely be refused, such an experiment was, and would be, in the interests of humanity But England's Queen has a score of "splendidly antlered stags" run into a paddock, captured, denuded of their horns, and properly prepared for the "sport with her Majesty's staghounds during the ensuing hunting season "

"Forest hunting will now be commenced by the Queen's buck hounds, which during this month are expected to meet Tuesdays and Fridays at the Royal Hotel, Ascot The pack is under the control of the Marquis of Waterford " Now look on this hypothetical picture "Experiments on rabbits will soon be commenced by Dr T Lauder Brunton in order to find a physiological antidote to the cobra poison, and thus put a stop to the holocaust in India The rabbits will be under the personal supervision of Dr Brunton and his assistant " If this were the case, who would be the greater friend to humanity, England's Queen or Dr Brunton? the Marquis of Waterford or Dr Brunton's assistant? Yet, had the *London Standard* contained this announcement in the same column with the twaddle quoted at the beginning of this article, the "*Humane Societies*" of England would have raised such a cry that Her Majesty's Government would have seen to it that Dr Brunton's "cruel experiments" were stopped Australia, under the English Government, has been recently overrun by rabbits, and they are there destroyed in every possible manner They may be poisoned, trapped and killed, as the red deer recently captured in Windsor Park, shot, or hunted with dogs—it matters not how they are tortured or killed, so they are not used for a scientific or humane purpose

These things show an amount of ignorance, inconsistency, and indifference to humanity that would be ludicrous were they not so terrible in their results Professor Yeo estimates, from the reports of vivisectionists, that of 100 experiments on animals seventy-five are absolutely painless, twenty as painful as vaccination, four as painful as the healing of a wound, and only *one* as painful as a surgical operation It does not need the estimate of a professor to show that of twenty deer hunted and caught by dogs, *twenty* will suffer as much as from a surgical operation Does the fact that this useless slaughter of deer is for the amusement of the ruler of a great nation, and the further fact that the instruments of torture are under the control of a Marquis, make it probable that the animals will suffer less? Are the sufferings of animals less acute when the hunter wears a red coat and blows a horn than when the experimenter wears a laboratory apron and administers an anæsthetic? Does the highly intellectual amusement afforded by seeing an animal torn by dogs outweigh the benefits, to science and humanity, gained by experimenting on an anæsthetized animal—or even one which feels every prick of a needle? Perhaps we are to believe that the unnecessary giving of pain for sport is not cruelty, while a practically painless experiment or a necessarily painful operation for solid scientific results is cruelty!

PNEUMONIA, ITS FATALITY—EXAGGERATED STATEMENTS

In the issue of the JOURNAL for October 10, 1885, was an article entitled "Thoughts on Some Points Connected with Pneumonia," in the introductory part of which there were some statements that attracted our attention For instance, on page 393 the writer says "Our predecessors for many long years viewed pneumonia as simply inflammation of lung tissue, and the spoliative treatment adopted by them was in keeping with those views If pneumonia be simply inflammation of lung tissue, and, *vice versa*, inflammation of the lung be pneumonia, certainly it should be treated antiphlogistically, just as it was treated fifty years ago, by blood-letting, purging, and a general depressant course But the *frightful mortality* attending this treatment is a fearful commentary upon it The fatality attending this antiphlogistic treatment was simply appalling And so it continued until J Hughes Bennet called a halt, and adopted a conservative, expectant and supporting treatment, since which time the mortality has been reduced 250 to 500 per cent "

These statements of the writer are doubtless made in perfect sincerity, but they are good specimens of the too common habit of speaking of the practices and opinions of preceding generations in terms of unlimited exaggeration Indeed, it is not rare that a writer or speaker presents the exceptional extravagancies and vagaries of the few in any past period as the rule of action or opinion in the age to which they belong And in relation to no subject is this more true than in regard to what our writer calls the "spoliative" or antiphlogistic treatment of pneumonia If he were to set about the task of furnishing proof of the "frightful" and "appalling" mortality of the former period to which he refers, and of the "250 to 500 per cent" reduction of that mortality in the present time, he would probably find it a far more difficult and perplexing one than he imagines

Perhaps the very latest treatise on croupous pneumonia from an authoritative source is the chapter on that subject in the third volume of the "System of Medicine by American Authors" just published, written by Alfred L Loomis, Professor of Practice of Medicine in the University of New York Under the head of *Prognosis*, Dr Loomis, after citing the ratio of mortality as reported by numerous recent writers, as derived from the hospitals of cities, the camps of armies and from private practice, sums up the result as follows "The mortality-average from *all the published reports to which I have had access*, gives 20 1 per cent of deaths" And he adds, "from such facts it must be admitted that a disease in which death occurs in one out of every five cases should be classed among the very fatal diseases But the death-rate varied very much at different times, *it is to-day the same as when Andral wrote, nearly fifty years ago* He stated that it varied from 33 to 2 per cent" It will be observed that the *fifty* years ago, when Andral wrote, was just the period when our contributor, Dr Hart, says the mortality was so *frightful and appalling* from the "blood-letting, purging" and other antiphlogistic measures then in vogue Yet his mortality results, instead of being from 250 to 500 per cent greater, are actually a little less than those obtained by Dr Loomis since J Hughes Bennett called his "halt" The highest rate of mortality mentioned by Andral was 33 per cent, while of 255 cases treated by Dr Loomis in his wards of the Bellevue Hospital during four years 87, or 34 per cent, died During the great war in this country from 1861 ,to 1865, of 61,202 cases of pneumonia reported as occuring among the white troops, 14,738 or a little more than 24 per cent died During the same period there occurred among the colored troops 16,133 cases, with a reported mortality of 33 per cent, or one in every three cases On the other hand, Sir J MacGregor states that of 4027 cases occurring among the troops in Spain, during the war with Napoleon, more than fifty years ago, 285 died, or only one in fourteen And the report adds, that they were treated "energetically," etc

Our sole object in calling attention to this subject, is to guard the younger portion of our readers against the adoption of such exaggerated ideas of the evil effects of former methods of treatment as compared with those popular at the present time, without first critically examining the literature of the past, as well as that of the present concerning any given topic under consideration

SOCIETY PROCEEDINGS

AMERICAN GYNECOLOGICAL SOCIETY

Tenth Annual Session, held at Washington, Sept 22, 23, and 24, 1885

(Concluded from page 468)

Second Day—Afternoon Session

In the discussion of Dr Reamy's paper, Dr H P C Wilson said that all agree that the perineum should be supported, but there is a great variety as to the way in which this support should be made Dr Reamy's method appears to be very practical, and it has the advantage of leaving the operator free to watch the case

Dr Mann thought the method of Dr Reamy a good one in a certain proportion of cases, but he was sure that he had seen some cases where it would have been of no avail The worst ruptures that he had seen had occurred in cases where, at the acme of the expulsive pain, the woman has torn herself from the accoucheur In such cases, the use of chloroform would of course obviate the difficulty Another objection to the method is that it requires more assistance than can always be secured

Dr Joseph Taber Johnson had made a few investigations in regard to the necessity of supporting the perineum at all, and he had found that perhaps more lacerations of the perineum occur in the practice of physicians who support the perineum, than in the practice of midwives who do not support the perineum

Dr Chadwick thought the term "supporting the perineum" a misnomer What is meant is retardation of the child's head, until the tissues can be sufficiently stretched to permit the passage of the head He does not permit the head to escape during a pain The method which he employs is to have the patient on her side and then pass one arm over the thigh, and by interlocking the fingers, he could make any desired amount of pressure The head is held back until the perineum is sufficiently stretched

Dr Ellwood Wilson, of Philadelphia, had tried all the methods that had been suggested for the support of the perineum, with the exception of the one described by Dr Reamy His usual plan is simply to instruct the woman to keep her mouth open during a pain

Dr Reamy, in replying to the statement of Dr Chadwick that supporting the perineum was a misnomer, said that the word support means protection or succor, and he used it in this sense The number of assistants required had been objected to, but the importance of preventing rupture of the perineum in the first labor is so great that even if two or three skilled assistants were required, they should be employed With this method the patient cannot get away An objection to the method referred to by Dr Chadwick is that the pressure is not made over the perineum, but over the head, and in the efforts to retard the head extension may be produced, causing the delivery of the head in a bad relation to the axis of the outlet The method mentioned obviates this By this method, the head can be retarded as much as may be desired He called attention to a clinical picture familiar to all, in which the head has been permitted to remain pressing on the perineum for from half an hour to two or three hours, until the perineum is stretched to the degree described in the paper The tissues are then in a state of beginning necrosis and exceedingly friable Even in such a case, the use of the towel or bandage lessens the perils of the perineum, and it will often be saved where otherwise it would have been torn It cannot be supported by the hand under such circumstances If it be desired, the forceps may be applied with the bandage in position

Dr E W Jenks reported

A CASE OF CÆSAREAN SECTION

He described the following case, which he had seen in consultation "The patient, aged 27, had given birth to one child five years previously without special difficulty, two years later, she received a fracture of the ilium from a building falling on her She was taken in labor at three o'clock in the morning The physician in attendance, finding some difficulty, tried to apply the forceps He got one blade on without difficulty, but could not, after several trials, introduce the second blade He sent for assistance, and the attempt to apply the forceps was again made without success The cause of difficulty was a projecting shelf of bone at the seat of fracture Another physician was called in, and the forceps were again tried It was then decided to perform craniotomy, which was done, but still the head could not be made to descend Dr Jenks was then sent for He tried to apply the forceps to make sure that they could not be applied, and failing, tried the cephalotribe with no better success It was then decided to perform abdominal section This was performed at two o'clock that night, twenty four hours after labor began The woman appeared to be in good condition The incision was made through the abdominal wall and the uterus opened The placenta was attached directly under the incision, and there was alarming hæmorrhage, which, however, was quickly checked by the rapid delivery of the fœtus The edges of the uterine incision were brought together by silk sutures, and the abdominal wound closed The patient did well until three days after the operation, when she suddenly died It was subsequently learned that the nurse had, in disobedience to orders, temporarily left the room, and in her absence the patient got out of bed She, complained of feeling something give way and experienced severe pain, and died in a few hours

Dr A J C Skene, of Brooklyn, thought that in such cases the chances of the patient are lessened by undue efforts at delivery by the forceps He thought that this would have been a good case for the performance of laparo elytrotomy It is impossible to sacrifice the child by that operation if it is performed in good time He could hardly imagine any case in which craniotomy should be performed, except, possibly, where the head is so engaged in a small inferior strait that it can be delivered in no other way Even then, he was not certain that the Cæsarean section would not be the best operation

Dr Jenks said that the operation of laparo-elytrotomy was discussed, but it did not seem to be an easy operation under the circumstances If it had not been for the unfortunate accident in this case, he thought that the woman would have recovered

Dr Ellwood Wilson, of Philadelphia, read a paper on

THE USE OF TARNIER'S FORCEPS

Dr Wilson had, at the meeting in 1881, read a paper in which he offered a number of objections to the use of these forceps His objections had been based on theoretical grounds The object of the present communication was to report nine cases in which he had used the forceps with decided advantage to the patient He had therefore modified his views A detailed account of the nine cases in which the forceps had been used was then given The instrument used had been Dr Howard's modification of Tarnier's forceps

Dr Neale, of Baltimore, exhibited his modification of the Tarnier forceps, which consisted in adapting the Tarnier principle to the Simpson forceps

Dr M D Mann had used the Tarnier forceps for the past two years in a number of cases, with satisfactory results in the main In one case of deformed pelvis in which the Tarnier forceps were applied, the child was finally delivered and the woman made a good recovery The child was, however, injured by the forceps The outer edge of the orbit had been crushed in, destroying the eye The child was living at the time of birth, but subsequently died

The President said that so far as he knew, he was the first one to use the Tarnier forceps successfully in America In cases of occipito-posterior positions he thought that the application of other forceps interfered with the rotation of the head, but with the Tarnier forceps the head is free to rotate

Evening Session

At the business meeting, the following were elected

OFFICERS FOR THE ENSUING YEAR

President, Dr Thad Reamy, Cincinnati

Vice Presidents, Dr Theophilus Parvin, of Philadelphia, and Dr George J Engelmann, of St Louis

Secretary, Dr Joseph Taber Johnson, Washington, D C

Treasurer, Dr Matthew D Mann, Buffalo

Other members of the Council, Drs Frank P Foster, B B Browne, J C Reeve, and R B Maury

New members were elected as follows "Dr J B Hunter, New York, Dr Charles Jewett, Brooklyn, and Dr W H Parrish, Philadelphia.

The next meeting will be held at Baltimore, Md , September 21, 22, and 23, 1886

THURSDAY, SEPTEMBER 24—THIRD DAY

DR R STANSBURY SUTTON of Pittsburg, read a paper on

A MODIFICATION OF EMMET'S CERVIX OPERATION IN CERTAIN CASES, WITH A CASE

He said that while the operation was original as far as he was concerned, he did not claim to be the only one who had performed it Cicatricial tissue is found to a greater or less extent in every lacerated cervix which has lasted for any length of time This is especially apt to be the case where nitrate of silver has been used in the treatment of the cervix The hardened tissue may be present in both lips, or it may be limited to one lip

The case reported was operated on June 5, 1885 She was the mother of several children There was a double laceration of the cervix The tissue of the anterior lip was hardened and hypertrophied, and the lip was convex from side to side and also from before backward, so that by the ordinary method of operation correct coaptation could not be effected The tissue of the anterior lip was as hard as cartilage Ordinary denudation of the posterior lip was sufficient, and this was made, leaving the strip of mucous membrane somewhat wider than usual The cicatricial mass involving the anterior lip was removed from border to border, completely denuding this portion of the cervix The parts were then brought together in the usual way, and the result was excellent The cervical canal readily admits a sound, and the woman menstruates without difficulty He thought that there were cases in which nothing short of the complete removal of the cicatricial tissue will be sufficient

DR WM GOODELL remarked that he had resorted to this device on more than one occasion He had done another thing on a few occasions, that is, outlined the strip of mucous membrane to be left and dissected it from the tissues below, leaving it united at its base The indurated tissue was removed and the flaps brought together The result was good

DR SKENE objected to the term cicatricial tissue as incorrect This was not cicatricial tissue, but a true sclerosis, a hypertrophied, indurated tissue Much could be done to get rid of this tissue by preparatory treatment But this often requires too much time, and then such an operation as that proposed by Dr Sutton was of service His own plan is to remove a transverse wedge shaped piece out of one or both lips of the cervix, as the case required, and then bring the surfaces together with silk stitches After the first day, the patient can go about, and the sutures are removed in the course of a week or ten days After the size of the cervix is reduced he performs the ordinary operation He had done both operations at one sitting, but preferred to do them separately One objection to the method of Dr Sutton was that it leaves cicatricial tissue

DR G J ENGELMANN had seen the condition referred to, very constantly In old and severe cases, it is impossible to retain the strip of mucous membrane He had at times entirely denuded both lips, and on some occasions had complete union, but the passage of a probe served to keep a canal open For the last few years, he has paid no attention whatsoever to this central strip A single piece of the carbolized silk thread with which the opening was closed, was inserted to keep the canal patulous A probe passed a few times after the removal of the sutures will dilate the opening The result of this operation has been good The union, the involution, and the restoration of the health of the patient have been perfect This operation has been done only in severe cases, and as far as he knew, none of these patients had conceived

DR M D MANN had tried the method described by Dr Sutton In only one case was it necessary to denude both surfaces To keep a patulous canal, he introduced a piece of small drainage tube The case did well

DR BAKER considered the retention of the mucous membrane as important He thought that the method of Dr Sutton, by leaving cicatricial tissue on one side of the canal, will tend to make the canal tortuous As a rule, if the patient is properly prepared, it will not be necessary to remove this hypertrophied tissue If this is not done, Emmet's operation can still be performed in the way described by Dr Skene Dr Baker prefers to do both operations at the same time It is then not necessary to introduce a suture to bring the edges of the transverse incision together Great care should be exercised in the introduction of substances between the two flaps

The PRESIDENT said that a few weeks before the death of Dr Sims he had seen Dr Harry Sims perform this operation in the presence of his father He inserted a glass tube that fitted so loosely that it had to be retained with a plug of cotton

DR SKENE thought that if denudation was practiced on both sides, stenosis would certainly follow

DR WILLIAM GOODELL, of Philadelphia, read a paper on

INFLAMMATION OF THE PAROTID GLANDS, FOLLOWING OPERATIONS ON THE FEMALE GENITAL ORGANS

He first referred to the close relation existing between the salivary organs and the genital organs of the adult, as shown in mumps and other conditions Parotid bubo seems particularly liable to follow ovariotomy, where septicæmia has taken place He had seen parotid bubo once in 173 cases of ovariotomies This was in a greatly emaciated woman from whom a tumor weighing eighty pounds was removed The patient had been twice tapped, once six weeks before the operation The second tapping was followed by septic poison, and the operation was performed as a last resort The patient did well until the ninth day, when the left parotid gland began to swell It suppurated and was opened The patient finally died on the twenty-second day after the operation

There is a transference of irritation to the parotid glands in which there is no evidence of septic poisoning Of this the author had seen three instances, twice after ovariotomy and once after oophorectomy In these cases the parotid complication did not influence the progress of the case Not one of these ended fatally He regarded the affection of the glands as sympathetic and not symptomatic

Within a short time he had operated on a lacerated cervix The operation was followed by free hæmorrhage, and in the second week the parotid glands began to swell This was succeeded by hysterical trismus, which lasted for some time The patient recovered

Dr Sutton stated that out of twelve ovariotomies he had lost one patient, and she died with the complication referred to in the paper The case did well until convalescence was reached, when one parotid gland began to swell This was followed by swelling of the other gland The temperature varied one or two degrees from the normal There was slight diarrhœa, no tympany, and no soreness A number of rose colored spots were found about the second week, over the abdomen and arm In the third week she became much worse The glands diminished in size, but the temperature ran up and she died He regarded the cases as septicæmic Others who saw the case considered it a well marked case of typhoid fever

Dr J T Johnson had seen this complication in one case of ovariotomy On the third or fourth day swelling of the parotid appeared There were the rose-colored spots referred to by Dr Sutton There was some fever, and the patient died on the sixth day

Dr Mann wished to put on record three cases which he had seen The first was a case of ovariotomy There were distinct symptoms of septicæmia, and the patient died before the glands suppurated The second case was one in which he had removed all the uterus above the internal os, and also the ovaries At the end of the first week one gland became swollen There was little fever The patient made a good recovery The third case was a boy who had received a penetrating wound of the abdomen Enlargement of the glands followed, but he made a good recovery

Dr Emmet added two cases of inflammation of the parotid glands Once it followed an operation for lacerated cervix, the patient recovering Once it followed an operation on a small vesico-vaginal fistula, the patient dying This is the only time he had seen death follow this operation

Dr Baker had seen the complication follow Tait's operation, the patient recovering

Dr Reamy had met with two cases One was after Tait's operation The glands did not suppurate, but the patient died the seventh day after the operation The second was a case of supra-vaginal hysterectomy, in which the uterus and both ovaries were removed The left gland became much enlarged, but did not suppurate The patient recovered

Dr James R Chadwick, of Boston, read a paper on

PERISTALSIS OF THE GENITAL TRACT, AND A NEW THEORY TO EXPLAIN RELAXATION OF THE VAGINAL OUTLET DURING LABOR

Some time ago he was called to see a primapara in labor He found the os slightly dilated and the vaginal outlet quite rigid Returning two hours later, the outlet was much relaxed, although the head had not escaped from the uterus On another occasion a woman with a bleeding fibroid tumor consulted him The examination revealed quite a small outlet Ergot was given to check the bleeding Later the patient returned and the outlet was found much relaxed This had occurred coincident with the occurrence of uterine contractions and the forcing down of the tumor Further investigation of this subject has led him to the conclusion that there is peristaltis action of the lower portion of the genital canal as well as of the fallopian tubes, and that it is to this that the relaxation of the outlet is largely due

Dr Goodell referred to a fact which seemed to bear out this idea, when after labor or abortion, a piece of membrane or placenta is retained, the cavity of the cervix is found funnel shaped, showing that the uterus is trying to force out the retained substance

Dr Theophilus Parvin, of Philadelphia, reported a case of

FACIAL PARALYSIS IN THE INFANT FROM THE USE OF THE OBSTETRIC FORCEPS

The following case was described A well proportioned woman, aged 30 years, had been in labor thirty-two hours, the first stage lasting twenty-four hours The only difficulty appeared to be want of strength in the uterine contractions The forceps were therefore applied and the child delivered The following day it was observed that one side of the face was paralyzed This was especially noticeable when the child cried There was no evidence of bruising from the forceps The paralysis disappeared in ten days without treatment

Dr Ellwood Wilson had seen such cases, and in every instance the paralysis had been on the right side This was attributed to the predominence of the left occipito anterior and the right occipito posterior positions Under such circumstances, one blade of the forceps would make pressure on the nerve

Dr Skene said that the differential diagnosis between facial paralysis from injury and facial paralysis from apoplexy is of importance, for apoplexy is not uncommon in new-born children Usually the diagnosis is readily made, but difficulty occurs in cases in which there is facial paralysis from injury associated with paralysis of the arm caused by violence in delivery He had seen such a case in consultation In this case it was of great importance to complete the labor quickly, and the shoulder had been injured in delivery, so that there was facial paralysis and paralysis of the arm on the same side At first there was no trace of contusion, but in a short time ecchymosis appeared and a favorable prognosis was given, which was verified

Dr Richardson remarked in most cases that he had seen the paralysis has been on the right side Once it resulted from the pressure of a bony tumor of the pelvis He had seen it where the forceps were applied to the after-coming head

The following papers were read by title

The Genu-Pectoral Posture in the Prolonged Nausea and Vomiting of Pregnancy, with cases, by Dr. H. F. Campbell, of Augusta, Ga., and *A Study of an Unusual Type of Puerperal Fever*, by Dr. Fordyce Barker, of New York.

A resolution expressing the sympathy of the Society with ex-President Dr. Albert H. Smith, in his sickness, was offered and adopted.

The officers for the ensuing year were then installed, and the Society adjourned.

CHICAGO MEDICAL SOCIETY

Stated Meeting, Oct. 5, 1885.

(*Continued from page 470.*)

DR. AUGUSTUS V. PARK read a paper on

LAPAROTOMY IN A CASE OF GUN-SHOT WOUND OF THE INTESTINES.

He said: M. S., a butcher-boy, aged 16, of slight build, formerly in poor but lately in good health, was shot on September 1st, 1885, at 3.30 P. M. A pistol ball of calibre 22, fired from a distance of forty-five feet, entered the abdomen at a point midway between the symphysis pubis and umbilicus, two inches to the left of the median line. The patient was removed in a farmer's spring wagon from the place where he was shot to his home, a distance of seven miles. A dressing was applied, and at 1 P. M., the next day, he was taken to the Michael Reese Hospital. The patient arrived nearly exhausted; his temperature was 100° F., pulse 130, weak and intermitting. His respirations were thirty, his abdomen tympanitic especially high on left side. There was no liver dullness, giving rise to a theory that the liver was crowded upward by extravasated blood. At 1.30 P. M., laparotomy was performed, the incision being made directly over the seat of the wound. We could not find any wound of the peritoneum, or where the ball passed through it. As the peritoneum was opened, decomposed blood rushed through the opening with great force. Blood and blood-clots which quickly formed were removed with sponges; the intestines were drawn out and examined for wounds. The first wound found was an abrasion, the ball not having entered the intestine. There was but little hæmorrhage, and the wound was closed by the interrupted cat-gut suture. The second wound, half-inch in diameter, opened directly into the intestine. A small mesenteric artery was found divided and tied. All hæmorrhage ceased. The wound was closed by interrupted suture; no further injury could be detected. The abdominal cavity was cleansed with a one per cent. solution of carbolic acid; the intestines were washed, carefully examined and returned. The abdominal incision was closed by two sets of sutures, the peritoneal surfaces were approximated and closed by continuous suture.

At 5.30 on the morning after the operation the patient died. Seven hours later an autopsy revealed commencing peritonitis, the small intestines being apparently agglutinated together. A few blood clots and a quantity of extravasated blood were found in the peritoneal cavity on the left side. A contused wound of the rectum was found near the sigmoid flexure, the ball being deflected from this position into the muscular tissue below, where it was found imbedded. This case justifies the opinion of various eminent surgeons that we cannot tell the direction the bullet takes from the position of the wound of entrance, or exit. From the conditions existing in this case, he was of the opinion the case would have terminated favorably had he been able to perform, with antiseptic precautions, laparotomy immediately after the injury.

DR. F. E. WAXHAM said that Dr. Park was entitled to a great deal of credit for presenting his paper and the specimen, because it is the report of a case which terminated unfavorably. He thought the chances of the patient would have been better if he had been allowed more quiet. His frequent removals must have loosened the blood clots and increased the hæmorrhage and prolonged the shock. If he had recovered he would have thought it almost miraculous, for it is one of the maxims of abdominal surgery to have complete and perfect quietude for the patient.

DR. R. TILLEY said the study of gun-shot wounds of the abdomen is interesting to every member of the profession, no matter in what particular direction his favorite studies may lead. Any one of us may find ourselves confronted with the responsibility associated with such cases when delay in action may be culpable. Relative to the case before us, he should not only not consider a recovery miraculous, but deem the conditions associated with it more favorable than, on the average, can be expected. One of the conclusions formulated by our President before the American Medical Association in Washington in 1884 is, in opening the abdomen to look for gun shot wounds, the incision should be in the median line, regardless of the bullet wound. This procedure certainly facilitates efficient inspection, but in the present case it was ignored. He regretted that the cause of failure of the operation has not been thrown into stronger relief, and he felt like asking the President, Dr. C. T. Parkes, to formulate the lessons he would draw from the failure of this operation. Of course, the case will go on record as one of operation after gun-shot wound of the abdomen associated with failure, and will tend to develop hesitation in the mind of the general practitioner about a class of cases which in his opinion, called for urgent, prompt operating.

DR. R. G. BOGUE said there were a few lessons to be learned from this case. One is the advantage which would follow an early operation, before the blood or fluid in the abdominal cavity decomposes. An operation should be made before the irritation from this source is severe. Another lesson is the necessity of a thorough exploration of the abdominal cavity for the purpose of discovering and removing any foreign substance which may be in it. It is necessary to control hæmorrhage, by opening the abdomen and having free access to every part of it.

DR. J. H. ETHERIDGE said that it will be noticed the pulse-rate was high after the operation, which lasted two hours. The question arises, if we cannot account for death on the opinion that it was due to the action of the ether on the cardiac nervous system Was there acute poisoning from ether? Or, was death caused by septicæmia? He wished to thank Dr Park for the report of this case, because it is from the reporting of these unsuccessful cases we obtain the most benefit He did not believe it would deter any one from doing abdominal surgery, as it had already taken such a rank that the report of one unsuccessful case would not intimidate any surgeon, but enable him to steer clear of difficulties others may have encountered

The PRESIDENT said that he felt somewhat diffident about making any remarks, because his experience in connection with gun shot wounds of the abdomen was solely in connection with the results of experiments upon the lower animals "There is one fact demonstrated by this case, and it stands out in all the cases, of which I know, operated upon in man, which corroborates the results of the experiments made by myself, and that is, the necessity of free incision through the median line of the abdomen, without any reference to the course of the bullet, as the best way to get at the injury so as to determine its extent, and to apply the means of repair as well as to secure a clean abdomen Another item mentioned in the case, is the one that blood flowed freely from the bullet wound, while the pafient was in the erect position and ceased when he was recumbent As the bullet passed through parts of little vascularity, this item points to the wounding of some large vessel internally (as was found), and becomes a point of value in the question of perforation This question of perferation is no easy one to settle positively, even in the best of hands I am inclined to agree with Dr Waxham in the opinion that it was not the best plan to remove the patient from his home before operating, notwithstanding his bad surroundings We must take into consideration the fact that his patient was accustomed to his surroundings, and far less likely to be harmfully affected by them than by the danger incidental to the jolting movements of removal

"Some of the accidents of the case I am sure would have been avoided by obeying the rule of open incision in the median line The autopsy showed considerable old blood in the cavity, this would have been found and removed The paper states no extravasation of bowel contents was noticed, the non-existince of such condition has doubt thrown upon it by the condition found at the autopsy The wound in the rectum would have been discovered, and the action of the bowel displayed shows an untouched perforation of its walls, probably the wound of entrance of the bullet The exit wound is sewed up

"The manner of closing the external incision as well as the bowel wounds should be such as to *save time* in the operation, by using the continuous catgut suture for small bowel wounds and single through and through suture of the abdominal incision It is pure waste of time to unite the latter in layers

"It is a matter of some pride and great pleasure to me to know that the principles enunciated by me as the results of experiments on the lower animals (especially as they are ridiculed by some) have so recently been put to a severe but successful application upon the human body Dr Bull, of New York, had a successful case of nine perforations, and Dr J B Hamilton, of Washington, D C, also a successful case with eleven perforations In Dr Hamilton's case, the only bad happening arose from the formation of a blood tumor—probably, as Dr Hamilton says, forming from a grazed surface, the bleeding from which could not be counteracted This was subsequently opened through the rectum and the patient recovered But it is interesting to notice that the patient was in greater danger of his life from this mass of blood than from the wounds in the intestine after they had been closed It shows also how necessary it is to prevent bleeding by securing, if possible, all bleeding points"

CHICAGO GYNECOLOGICAL SOCIETY

Regular Meeting, Friday Evening, September 18th, 1885

THE PRESIDENT, H P MERRIMAN, M D,
IN THE CHAIR

DR E C DUDLEY made some remarks relative to his observations in

GYNECOLOGICAL AND ABDOMINAL SURGERY IN EUROPE

His observations were confined to the work of a few operators in England, Scotland and Heidelberg

In Heidelberg Dr Dudley inspected the hospital and saw evidence of considerable work in abdominal surgery Dr Kehrer's laboratory gave evidence of active research into gynecological bacteriology His work bore the stamp of thoroughness and efficiency Dr Kehrer is a medium-sized man frail and delicate, with a large head and small body

A call upon Dr Bantock, at his office, No 18 Harley Street, W, London, resulted in a pleasant hour's conversation upon subjects pertaining to ovariotomy and hysterectomy Patients at the Samaritan Hospital sometimes die within twenty-four hours after laparotomy, with a high temperature This condition was called acute sepsis by certain systematic writers Dr Bantock thought the true pathology of the condition was unknown, and was not satisfied with the term acute sepsis Dr Dudley saw Dr Bantock operate at the Samaritan Hospital The first operation was the removal of a small, solid ovarian tumor The remaining ovary and tube, although normal, were removed on account of a small intramural, uterine fibroid The striking feature of the operation was great rapidity without haste Dr Bantock caught up the edges of the peritoneum with small compression forceps, so that these edges were drawn up towards the cutaneous edges, and were held in this position by the weight of the instrument against the abdominal surface This manœuvre greatly facilitated the passage of the sutures The pedicle was secured by means of silk ligature, applied in the operator's peculiar figure-of eight turns

In closing the wound, a needle of ovoid shape, curved on the edge, instead of on the flat, was employed This needle combines the maximum of strength with the minimum of size Two or three sutures were passed through at each angle of the wound Their ends were joined by knots An assistant, passing the index finger of each hand through the loops thus formed, made traction at each angle of the wound, in such a manner as to draw its sides into contact, and to lift the peritoneal edges nearer to the surface The introduction of the remaining sutures was in this manner greatly facilitated The sutures were so closely passed that no superficial stitches were required They were made to include a very narrow margin of skin and peritoneum, and very little if any muscular tissue Fine silk-worm gut was employed

The ends of the sutures, on each side of the wound, were now grasped in lock forceps, which prevented them from being drawn out, or becoming tangled during the separation of the wound for the toilet of the peritoneum (which was most thorough), the entire cavity being rendered perfectly clean and dry The lock forceps were then removed from the ends of the sutures, and the hands of the assistant substituted The action was thus made on all the sutures, in the direction of the upper angle of the wound, and they were tied in order from below upward and cut short This prevents tangling of the threads and otherwise facilitates tying Antiseptics, throughout the operation, were conspicuous by their absence The dressings were of the most simple character

Dr Bantock showed Dr Dudley over the hospital, which contained a number of convalescents from hysterectomy, ovariotomy, and oophorectomy Dr Bantock's exceptionally good results, in the last operation, are recognized throughout the world His wonderful statistics in abdominal surgery are due to downright splendid operating Dr Meridith, at the same time, was removing a tumor in another room, under the most extreme antiseptic conditions The famous Samaritan Hospital is an unpretentious building, seemingly a large reconstructed dwelling, in the middle of a block, with houses joining on either side, and, like great men, has a modest appearance

It is generally supposed in America that the Woman's Hospital, in the State of New York, established by Marion Sims in 1855, was the first of its kind in the world This is a mistake Dr Sims himself, in a letter to Dr Protheroe Smith, of London, dated July, 1883, accords to that gentleman the honor of having established the first hospital specially for the treatment of the diseases of women This hospital, founded in 1842, is now a flourishing institution in London, and is called the Hospital for Women Its venerable founder visited Chicago a year ago His enthusiasm for the specialty in which he has been a pioneer continues, indeed, seems to increase with advancing years He retains his official connection with the institution, as senior physician, and is still engaged in active practice He was among the first, against bitter opposition, to advocate anæsthesia in labor Efforts are now being made, with great promise of success, to raise funds for the construction of a larger and more appropriate hospital building

Dr Dudley visited Birmingham, in response to a polite telegraphic invitation from Mr Lawson Tait On the train he occupied the same compartment with a sleek, well fed, high church London clergyman of the most conservative order, who intimated in no uncertain manner that the conservative people of London looked down upon the inhabitants of the radical city of Birmingham as a semi-barbarous community So decided were his denunciations of the radical party in general and of Birmingham in particular, which, as the chief stronghold of radicalism, always return John Bright and Chamberlain to Parliament, that Dr Dudley, in an apologetic manner, explained that he was only going into the jaws of the Philistine to witness an operation by a distinguished surgeon, from whom he hoped to learn something The clergyman inquired who the surgeon was, and upon hearing the name of Lawson Tait, exclaimed "O, I know all about him, he is just as bad as any of them," which means that Mr Tait is a radical in politics, as he is in surgery

Mr Tait's ridicule of antiseptics is well known His rapid method of operating conveys to the casual observer the idea of haste and almost of carelessness But closer observation very soon shows him to be one of those rare operators, where dexterity amounts almost to a sleight of hand An ovariotomy, in his hands, does not impress the observer as a capital operation It seems almost as trivial as opening an abscess His methods of operating did not materially differ from those of Dr Bantock In closing the wound he used but one needle, threaded with a piece of long silk, introducing this as if for a continuous suture, but did not draw the thread tight After the introduction of the needle, he left a long loop before the reintroduction Then, after taking the last stitch, he lifted the free loops of silk on the index finger, and severed them with the scissors, thereby converting the continuous into an interrupted suture These were tied in the ordinary way, and the wound was dressed in a manner which would be eminently acceptable to his most bitter antiseptic enemy

During the day Mr Tait performed ovariotomy, lumbo colotomy, perineorrhaphy, and excised a urethro-vulvar cyst, besides attending to a large number of consultations, in one of which Dr Dudley accompanied him to a distance of forty miles This was for him only a moderate day's work It is indeed evident that no other man in England controls a larger practice in abdominal surgery

During a brief visit in Edinburgh, Dr Dudley was pleasantly entertained by Dr Thomas Keith, who had just returned from a consultation with Dr Homans, in Boston, but unfortunately Dr Keith did not operate during this time, although a large number of patients were waiting for him at the Royal Infirmary His son, Dr Skene Keith, kindly invited Dr Dudley to an ovariotomy, his forty-eighth operation Up to this time he had only lost one or two patients His operation presented some interesting peculiarities He used probe pointed scissors of a peculiar pattern, instead of the director, in going down through the deeper layers of the abdominal walls By pressing firmly against the adhesions with a sponge, at the point of their attachment to the cyst, he literally sponged them away from the tumor It was surprising to note the facility with which rather firm adhesions were thus broken It is much easier to tear them from the tumor with the sponge than to tear the tumor from the adhesions The breaking of the adhesions in this way is also much more gentle, and, in the opinion of Dr Keith, diminishes the danger from shock The adhesions were ligatured with fine cat gut as fast as they were divided In passing the ligatures a forceps, similar to the ordinary compression forceps, was used This instrument had blades more than an inch long, of very small diameter terminating in sharp points, so sharp that when the blades were closed they could be thrust through any soft tissue like a large needle Grasping the ligature in the point of these blades, the tissue to be ligatured was transfixed The ligature was then pulled through and the forceps withdrawn The pedicle was transfixed and ligatured, with fine silk, in the same way

The cautery, to which much of the elder Keith's success has been attributed, was not employed in this case, because the pedicle was very slender The reason why the cautery, in the hands of other operators, has not proved a more perfect protection against hæmorrhage, becomes apparent to any one who has witnessed its application in the hands of Dr Keith The whole secret of his method is, first, in the powerful compression of the pedicle between the broad blades of a heavy Baker Brown clamp, second, in the prolonged application of the red hot cautery iron, not only to the pedicle, but, after this has been burned to the level of the clamp, also to the clamp itself In this way the clamp becomes so hot that the included portion of the pedicle is slowly and thoroughly cooked, so that when the instrument is removed, the end of the pedicle is thin and translucent, resembling a horny substance Such a pedicle, in the experience of Dr Keith, never gives trouble from oozing The wound was closed with fine silk sutures which had been boiled Ten or fifteen pieces of silk were threaded at each end with very finely, well-tempered needles nearly three inches long, which were introduced on either side from within outward Very small margins of peritoneum and skin were included in the sutures Dr Keith thought it a very common fault among operators to draw the stitches too tight in tying The long, fine needle used in closing the wound is superior It makes a very small puncture, which never bleeds, and is so fine that it is easily pushed through by means of finger and thumb without needle forceps In the *American Journal of Obstetrics*, April, 1880, Marion Sims had given a remarkable description of the Keith operation, which has exerted a powerful and beneficent influence upon the operation in America Dr Dudley could add little except the gentle handling of the adhesions with the sponge, the ligature forceps, and the peculiar long, straight needles already mentioned

The wonderful success without antiseptics recorded by the great Scotch ovariotomist, by Dr Bantock and by Mr Tait, who have reduced the mortality almost to zero, must have great influence in fixing the value of Listerism so far as it relates to abdominal surgery At any rate, incompetent operators can no longer venture with impunity upon these capital operations under the dangerous impression that, in some mysterious way, antiseptics will deprive a crude surgical performance of its greatest perils Evidently it was not so much a question of Listerism as of removing the tumor with the least possible amount of operating, and in the shortest time consistent with careful attention to detail, and in the most gentle manner Dr Dudley, however, raised the pertinent question whether Listerism should be placed on trial before a court of abdominal surgeons, and whether, if found unnecessary in peritoneal surgery, it could be fair to condemn it in general He thought such a verdict could not be sustained by the facts, but that the antiseptic principle in surgery was destined to stand Even the most violent opponents of antiseptics agreed that perfect cleanliness was essential He knew of no other method by which cleanliness could be rendered so nearly absolute Nor did the seeming ability of two or three of the most dexterous operators to do without antiseptics prove that it might not be a useful aid to others Clearly, the man who removes a tumor with the least operating and handling of the parts will require fewer preventive measures against inflammation and sepsis Antiseptics, therefore, might be most valuable for an inexperienced operator, and, to say the least, an additional safeguard for any one Some American operators were now having about as good results as could be shown in Great Britain, which seemed to indicate that our former high mortality in this American operation had been due in reality to bad operating, and not, as many supposed, to climatic causes

The minor gynecology of Great Britain had apparently made but little progress since the days of Bennett and Simpson The general impression prevails that on this side of the Atlantic we are going wild in the minor gynecological surgery In response, we may now congratulate our English brethren that many of their leading gynecologists are already commencing to comprehend, to appreciate and to perform the American operations of perineorrhaphy, elytrorrhaphy and trachelorrhaphy, and at the same time to lay aside, in a measure, the old *porte caustique*

Dr H P Newman said that there were other reasons for the brilliant success of foreign laparotomists than those referred to by Dr Dudley Aside from the facility and expeditious manner of operating, acquired by large experience, a prime factor is the justifiable self confidence of the operator and a responsive confidence inspired in the patient

Dr W W Jaggard thought that minor gynecological operations, as Dr Dudley termed them, were less frequent in the United Kingdom and the Continent than in America Dr Dudley had made this general assertion, and he agreed with him He did not, however, think the operative skill of British or Continental surgeons inferior to that of their American *confreres* The indications for operative procedure do not exist in the United Kingdom and the Continent as in America Laceration of the cervix and perineum are of much less frequent occurence The ployed This needle combines the maximum of strength with the minimum of size Two or three sutures were passed through at each angle of the wound Their ends were joined by knots An assistant, passing the index finger of each hand through the loops thus formed, made traction at each angle of the wound, in such a manner as to draw its sides into contact, and to lift the peritoneal edges nearer to the surface The introduction of the remaining sutures was in this manner greatly facilitated The sutures were so closely passed that no superficial stitches were required They were made to include a very narrow margin of skin and peritoneum, and very little if any muscular tissue Fine silk worm gut was employed

The ends of the sutures, on each side of the wound, were now grasped in lock forceps, which prevented them from being drawn out, or becoming tangled during the separation of the wound for the toilet of the peritoneum (which was most thorough), the entire cavity being rendered perfectly clean and dry The lock forceps were then removed from the ends of the sutures, and the hands of the assistant substituted The action was thus made on all the sutures, in the direction of the upper angle of the wound, and they were tied in order from below upward and cut short This prevents tangling of the threads and otherwise facilitates tying Antiseptics, throughout the operation, were conspicuous by their absence The dressings were of the most simple character

Dr Bantock showed Dr Dudley over the hospital, which contained a number of convalescents from hysterectomy, ovariotomy, and oophorectomy Dr Bantock's exceptionally good results, in the last operation, are recognized throughout the world His wonderful statistics in abdominal surgery are due to downright splendid operating Dr Meridith, at the same time, was removing a tumor in another room, under the most extreme antiseptic conditions The famous Samaritan Hospital is an unpretentious building, seemingly a large reconstructed dwelling, in the middle of a block, with houses joining on either side, and, like great men, has a modest appearance

It is generally supposed in America that the Woman's Hospital, in the State of New York, established by Marion Sims in 1855, was the first of its kind in the world This is a mistake Dr Sims himself, in a letter to Dr Protheroe Smith, of London, dated July, 1883, accords to that gentleman the honor of having established the first hospital specially for the treatment of the diseases of women This hospital, founded in 1842, is now a flourishing institution in London, and is called the Hospital for Women Its venerable founder visited Chicago a year ago His enthusiasm for the specialty in which he has been a pioneer continues, indeed, seems to increase with advancing years He retains his official connection with the institution, as senior physician, and is still engaged in active practice He was among the first, against bitter opposition, to advocate anæsthesia in labor Efforts are now being made, with great promise of success, to raise funds for the construction of a larger and more appropriate hospital building

Dr Dudley visited Birmingham, in response to a polite telegraphic invitation from Mr Lawson Tait On the train he occupied the same compartment with a sleek, well fed, high church London clergyman of the most conservative order, who intimated in no uncertain manner that the conservative people of London looked down upon the inhabitants of the radical city of Birmingham as a semi barbarous community So decided were his denunciations of the radical party in general and of Birmingham in particular, which, as the chief stronghold of radicalism, always return John Bright and Chamberlain to Parliament, that Dr Dudley, in an apologetic manner, explained that he was only going into the jaws of the Philistine to witness an operation by a distinguished surgeon, from whom he hoped to learn something The clergyman inquired who the surgeon was, and upon hearing the name of Lawson Tait, exclaimed "O, I know all about him, he is just as bad as any of them," which means that Mr Tait is a radical in politics, as he is in surgery

Mr Tait's ridicule of antiseptics is well known His rapid method of operating conveys to the casual observer the idea of haste and almost of carelessness But closer observation very soon shows him to be one of those rare operators, where dexterity amounts almost to a sleight of hand An ovariotomy, in his hands, does not impress the observer as a capital operation It seems almost as trivial as opening an abscess His methods of operating did not materially differ from those of Dr Bantock In closing the wound he used but one needle, threaded with a piece of long silk, introducing this as if for a continuous suture, but did not draw the thread tight After the introduction of the needle, he left a long loop before the reintroduction Then, after taking the last stitch, he lifted the free loops of silk on the index finger, and severed them with the scissors, thereby converting the continuous into an interrupted suture These were tied in the ordinary way, and the wound was dressed in a manner which would be eminently acceptable to his most bitter antiseptic enemy

During the day Mr Tait performed ovariotomy, lumbo colotomy, perineorrhaphy, and excised a urethro vulvar cyst, besides attending to a large number of consultations, in one of which Dr Dudley accompanied him to a distance of forty miles This was for him only a moderate day's work It is indeed evident that no other man in England controls a larger practice in abdominal surgery

During a brief visit in Edinburgh, Dr Dudley was pleasantly entertained by Dr Thomas Keith, who had just returned from a consultation with Dr Homans, in Boston, but unfortunately Dr Keith did not operate during this time, although a large number of patients were waiting for him at the Royal Infirmary His son, Dr Skene Keith, kindly invited Dr Dudley to an ovariotomy, his forty eighth operation Up to this time he had only lost one or two patients His operation presented some interesting peculiarities He used probe pointed scissors of a peculiar pattern, instead of the director, in going down through the deeper layers of the abdominal walls By pressing firmly against the adhesions with a sponge, at the point of their attachment to the cyst, he literally sponged them away from the tumor It was surprising to note the facility with which rather firm adhesions were thus broken It is much easier to tear them from the tumor with the sponge than to tear the tumor from the adhesions The breaking of the adhesions in this way is also much more gentle, and, in the opinion of Dr Keith, diminishes the danger from shock The adhesions were ligatured with fine cat-gut as fast as they were divided In passing the ligatures a forceps, similar to the ordinary compression forceps, was used This instrument had blades more than an inch long, of very small diameter terminating in sharp points, so sharp that when the blades were closed they could be thrust through any soft tissue like a large needle Grasping the ligature in the point of these blades, the tissue to be ligatured was transfixed The ligature was then pulled through and the forceps withdrawn The pedicle was transfixed and ligatured, with fine silk, in the same way

The cautery, to which much of the elder Keith's success has been attributed, was not employed in this case, because the pedicle was very slender The reason why the cautery, in the hands of other operators, has not proved a more perfect protection against hæmorrhage, becomes apparent to any one who has witnessed its application in the hands of Dr Keith The whole secret of his method is, first, in the powerful compression of the pedicle between the broad blades of a heavy Baker Brown clamp, second, in the prolonged application of the red hot cautery iron, not only to the pedicle, but, after this has been burned to the level of the clamp, also to the clamp itself In this way the clamp becomes so hot that the included portion of the pedicle is slowly and thoroughly cooked, so that when the instrument is removed, the end of the pedicle is thin and translucent, resembling a horny substance Such a pedicle, in the experience of Dr Keith, never gives trouble from oozing The wound was closed with fine silk sutures which had been boiled Ten or fifteen pieces of silk were threaded at each end with very finely, well tempered needles nearly three inches long, which were introduced on either side from within outward Very small margins of peritoneum and skin were included in the sutures Dr Keith thought it a very common fault among operators to draw the stitches too tight in tying The long, fine needle used in closing the wound is superior It makes a very small puncture, which never bleeds, and is so fine that it is easily pushed through by means of finger and thumb without needle forceps In the *American Journal of Obstetrics*, April, 1880, Marion Sims had given a remarkable description of the Keith operation, which has exerted a powerful and beneficent influence upon the operation in America Dr Dudley could add little except the gentle handling of the adhesions with the sponge, the ligature forceps, and the peculiar long, straight needles already mentioned

The wonderful success without antiseptics recorded by the great Scotch ovariotomist, by Dr Bantock and by Mr Tait, who have reduced the mortality almost to zero, must have great influence in fixing the value of Listerism so far as it relates to abdominal surgery At any rate, incompetent operators can no longer venture with impunity upon these capital operations under the dangerous impression that, in some mysterious way, antiseptics will deprive a crude surgical performance of its greatest perils Evidently it was not so much a question of Listerism as of removing the tumor with the least possible amount of operating, and in the shortest time consistent with careful attention to detail, and in the most gentle manner Dr Dudley, however, raised the pertinent question whether Listerism should be placed on trial before a court of abdominal surgeons, and whether, if found unnecessary in peritoneal surgery, it could be fair to condemn it in general He thought such a verdict could not be sustained by the facts, but that the antiseptic principle in surgery was destined to stand Even the most violent opponents of antiseptics agreed that perfect cleanliness was essential He knew of no other method by which cleanliness could be rendered so nearly absolute Nor did the seeming ability of two or three of the most dexterous operators to do without antiseptics prove that it might not be a useful aid to others Clearly, the man who removes a tumor with the least operating and handling of the parts will require fewer preventive measures against inflammation and sepsis Antiseptics, therefore, might be most valuable for an inexperienced operator, and, to say the least, an additional safeguard for any one Some American operators were now having about as good results as could be shown in Great Britain, which seemed to indicate that our former high mortality in this American operation had been due in reality to bad operating, and not, as many supposed, to climatic causes

The minor gynecology of Great Britain had apparently made but little progress since the days of Bennett and Simpson The general impression prevails that on this side of the Atlantic we are going wild in the minor gynecological surgery In response, we may now congratulate our English brethren that many of their leading gynecologists are already commencing to comprehend, to appreciate and to perform the American operations of perineorrhaphy, elytrorrhaphy and trachelorrhaphy, and at the same time to lay aside, in a measure, the old *porte caustique*

Dr H P Newman said that there were other reasons for the brilliant success of foreign laparotomists than those referred to by Dr Dudley Aside from the facility and expeditious manner of operating, acquired by large experience, a prime factor is the justifiable self-confidence of the operator and a responsive confidence inspired in the patient

Dr W W Jaggard thought that minor gynecological operations, as Dr Dudley termed them, were less frequent in the United Kingdom and the Continent than in America Dr Dudley had made this general assertion, and he agreed with him He did not, however, think the operative skill of British or Continental surgeons inferior to that of their American *confrères* The indications for operative procedure do not exist in the United Kingdom and the Continent as in America Laceration of the cervix and perineum are of much less frequent occurence The *cervix uteri* is usually effaced, and the external os is fully dilated before the application of the forceps Manual dilatation is less frequently practiced The bag of waters is not prematurely ruptured Greater care is taken with the preservation of the perineum In a word, obstetricians are better operators, and do not require so called gynecological assistants

Dr E J Doering said that in 1874, he had been present at ovariotomy and other operations, performed at the Samaritan Hospital by Sir Spencer Wells He was particularly impressed with the extreme care exercised in admitting spectators to the operations, each visitor being required to sign a statement that he had not made an autopsy or attended a case of contagious disease for the two or three days preceding He desired to know whether these regulations were still in force, and also if Mr Lawson Tait and Dr Keith required similar restrictions

The President asked the following questions 1 Was any treatment given to the patients to prepare them for the operation by any of the eminent gentlemen mentioned? 2 How were the patients covered during the operation, or was the whole abdomen left bare? 3 How was the evacuation of the cyst managed? 4 Was the patient turned upon her side to accomplish this, as Dr Thomas sometimes does?

The President suggested that all who desired should ask questions for further light before the general discussion began

Dr Christian Fenger replied to the question, raised by Dr Dudley, that antiseptic precautions might be more important in surgery, in general, than in abdominal surgery, where it looked as though more perfect methods of operating without antisepsis gave as good results as with antisepsis, as follows

He thought that the abdominal, or rather peritoneal cavity, in respect to the antiseptic precautions, occupies a peculiar position in surgery The danger from absorption of the poisonous antiseptics is far greater in the abdomen than in wounds The ability of the peritoneum to absorb serous fluid and blood before it decomposes, to encapsulate foreign substances not capable of absorption—*ex gr*, rubber ligature—is perhaps somewhat greater than the ability of a wound in that direction, although it may be that there is some prejudice about this, as we have not as yet used silk ligatures extensively in general surgery As to the question, whether more perfect methods of operating without antisepsis would improve the results, or rather prevent inflammation and sepsis, he could say that outside of the peritoneum this question must as yet be answered in the negative

In 1873, Volkman, of Halle, introduced the Lister method of dressing and operating in his surgical clinics In his report of the work done in 1873 (*Beitrage zur Chirurgie*, 1875), the antiseptic surgery had reduced inflammatory and septic complications following excisions, amputations, fresh penetrating articular wounds, fresh open fractures, to a minimum never before dreamt of, and all this in one year In the broad field of surgery it is not possible that Volkmann or anybody else could improve the *technique* of operating, to the extent of having the results change all of a sudden in that way No surgeon would dare, to day, to excise, for example, a knee-joint, without antiseptic precautions in all the minute details, even if he employed all the latest improvements in the method of operating Abdominal surgery is the only branch of surgery in which, as yet, the heavy operating has been done without antiseptic precautions

---

GYNECOLOGICAL SOCIETY OF BOSTON

Stated Meeting, June 11, 1885

The President, H O Marcy, M D, in the Chair

Dr I S Fox, of Lowell, reported

TEN CASES OF ABDOMINAL SECTION

As regards the *modus operandi*, the minimum incision should be made, unless the tumor is solid or firmly adherent Before tapping the cyst, the patient is turned upon the right side, and the sac drawn forward as the fluid escapes If the bulk of the tumor remains, enlarge the opening into the sac, turn their lateral edges out over the lips of the incision, pass in the hand and break up remaining cysts The sac having been extricated, the patient is placed on her back and the pedicle secured As a ligature, coarse, loosely-braided silk is used, as ordinary silk cuts the soft tissues and causes troublesome hæmorrhage

The sac having been cut away, the peritoneal edges of the stump are brought together and overcast with catgut The abdominal cavity is carefully sponged out and the bleeding point secured The abdominal wound is thoroughly cleansed and covered with oiled silk, over which a padding of antiseptic gauze is placed This dressing is kept in place by long strips of adhesive plaster All silk used is previously boiled and kept in water All water used is boiled A solution of carbolic acid is used in spraying room and mopping floor On day before operation patient is bathed in weak carbolized water, and vaginal douche of same liquid used Temperature of room should be from 68° to 72° Fahr

Dr Fox suggested a change in Keith's drainage tube, which consisted of a constriction just below the flange to assist in holding it in position

Cases 1, 2 and 3 were cases of multilocular cysts weighing eighteen, twenty-seven and thirty-five lbs respectively Recovery in each case

Case 4—Patient 43 years old, and extremely weak and emaciated Pulse rapid, feet moist, œdematous and cold Diagnosis cystoma complicated with uterine fibroid Tumor removed weighed twenty-seven lbs Recovery

Case 5—Multilocular cyst weighing twenty lbs was removed Extensive adhesions Septic peritonitis on fourth day By use of quinine, alcohol and opium patient recovered after a lingering illness

Case 6—Age, twenty seven Always delicate and subject to glandular swellings about neck Before she decided to submit to an operation, pregnancy supervened She presented herself for operation when five months pregnant Cyst crowded upward by impregnated uterus Cyst removed weighed fifteen lbs Miscarried on fifth day Temperature remained at 99° for three days, when lochia became offensive and patient had chills Left parotid increased to an enormous size and was extremely painful Temperature rose to 104° Fahr , and patient seemed in a critical condition Intra uterine douche of two and one-half per cent was used at a temperature of 105° All the unpleasant symptoms subsided within a week

Case 9 —Patient 27 years old For eight years had suffered agonizing pains through pelvis, always referable to one or both ovaries At first these pains took the form of dysmenorrhœa, and incapacitated her for work for two weeks out of the four During past three years pains had come on without reference to menses Often they were accompanied by vomiting which lasted for days at a time She was much emaciated Latterly her sufferings could be palliated only by the use of anæsthetics All treatment, including galvanism, failed After consultation, removal of ovaries was allowed and eagerly accepted Operation was performed two months ago, and thus far entire relief has been obtained Ovaries were non adherent and of normal size, but studded with small cysts

Case 10 —Patient 41 years old For two years had had menorrhagia and was unwell the greater part of the time Diagnosis fibroma of uterus and cystic tumor of right ovary Operation performed and small cyst removed Small pedunculated fibroid was removed from back of uterus Left ovary was so firmly held by fibroid uterus that it was impossible to remove it Recovery

Dr W S Brown thought the paper complete, and asked about the silk used Dr Brown prefers black silk, as it is dyed with iron and is innocuous, it can also be more readily seen in the tissues White or yellowish silk is prepared by the use of acetate of lead

Dr Fox stated that the silk used by him was made by Hepner, of New York, and was so coarse and loosely braided as not to cut the tissues and cause troublesome hæmorrhage

In response to questions from members of the Society, Dr Fox made the following statement Fluid accumulations in the abdomen might be mistaken for ovarian cysts by experienced men A case once operated on by Dr Kimball, of Lowell, illustrated this fact Patient had had Potts' disease and spinal curvature, but had never been confined to bed Abdomen increased in size for three years Pulse and temperature normal Operation for ovarian cyst was performed and a pailful of pus removed Sac adherent to spine and could not be removed Lived sixteen days The autopsy showed an immense psoas abscess on left side and smaller one on right Cases of spontaneous cure have been reported, but the tendency is toward a fatal issue, therefore Dr Fox usually operated as soon as diagnosis was certain Does not consider the character of the fluid before operating He does not believe in Drysdale's corpuscles

Dr A P Clarke thought that the marked fatality of the earlier cases operated on was due to the fact that the operation was deferred until the last stages of the disease

Dr W S Brown was often in doubt as to the proper time for operation Has a case now under observation in which the tumor is of the size of a man's head When discovered five years ago it was of size of pigeon's egg No unpleasant symptoms exist except prolapse of uterus Suspects it is a tumor of broad ligament As a rule, parovarian tumors grow slowly and ovarian tumors rapidly Dr Brown called attention to the fact that Sir Spencer Wells has discovered by a careful study of the history of cases subsequent to operation, that many of them die within three or four years

DOMESTIC CORRESPONDENCE

NEW YORK LETTER

(FROM OUR OWN CORRESPONDENT)

First Annual Meeting of the Fifth District Branch —Electrolysis in Surgery—Fracture of the Skull with Depression—Poisoning by Aniline Oil—Causation and Treatment of Coryza—Cirrhosis of the Lungs—Surgical Practice and Surgical Anatomy—Treatment of Varicocele—The Approaching Meeting of the State Medical Association

The first annual meeting of the Fifth District Branch of the New York State Medical Association was held at the Mansion House, Brooklyn, on the 13th of October, and despite the fact that it chanced on the stormiest day of the season, was extremely successful There were two sessions, one in the morning and one in the afternoon, and the first scientific paper at the former was by Dr Robert Newton, of New York, on the subject, "*Progress of Electrolysis in Surgery* " Having spoken of the paper which he read before the American Medical Association in 1883, on "Electrolysis in Surgery, with Tabular Statistics of One Hundred Cases of Urethral Stricture," which was afterwards published in two parts, the first in the Journal of the Association, April 25, 1885, and the second in the *New England Medical Monthly* for August, 1885, he said that the object of the present paper was to relate what has been done in surgical electrolysis within the last two years, or since the date of the former paper During this period some good work had been done by reliable men, which confirmed the reports of previous experience with the method The only entirely new application of it appeared to be that of Dr Craft, of Cleveland, Ohio, a member of the American Medical Association, to the treatment of hernia and hemorrhoids The radical cure of hernia by electrolysis was new and original, and in a private letter to Dr Newman, Dr Craft stated that to accomplish this he had applied a positive needle electrode, properly insulated, except at the point, subcutaneously, between the external and internal rings, and allowed a sufficient galvanic current to pass behind the poles to excite adhesive inflammation, being careful not to injure the cord and to keep the needle external to the peritoneum This resulted in a cicatricial sealing up of the inguinal canal, and, in many cases, seemingly permanently Having described Dr Craft's method of treating hæmorrhoids by electrolysis, he went on to speak of the successful application of the procedure in aneurism of the aorta by Dr Francesco Brancaccio, of Naples, in port-wine marks by Dr W A Hardaway, of St Louis, and others, for the purpose of removing superflous hair by Dr C Heitzman, in uterine tumors by Dr J N Freeman, of Brooklyn, Dr J T Everett, of Clyde, Ohio, and Drs Apostolé and Méniere, of Paris, in stricture of the Eustachian tube by Mons Mercier and Garricon-Desarenes, of Paris, and in stricture of the œsophagus by Professor H'jorth, of Christiania

In reply to a question by Prof Wm H Pancoast, of Philadelphia, who was present at the meeting by special invitation from the President, Dr Joseph C Hutchinson, of Brooklyn, Dr Newman stated that electrolysis acted in different ways according to the manner in which it was used Weak currents would cause absorption, while strong ones would destroy His own experience had been different from that of Dr Craft as regards the comparative painfulness of the action by the two poles Contrary to him, he had found that the positive pole caused more pain, acting, as it did, as an acid caustic, while the negative acted as an alkaline caustic He agreed with Dr Craft, however, as to the propriety of using the positive pole in hernia, when the object was to set up adhesive inflammation The negative pole undoubtedly did cause absorption, and this was the one to be employed in urethral and other strictures

Dr Govan, of Rockland Co , read the report of a remarkable case of fracture of the skull, with depression, from a railway injury, in which the depressed bone became raised spontaneously after the patient had remained in an unconscious condition for several days He also reported a case of poisoning by aniline oil The patient was engaged in removing a carboy of this oil which was accidentally broken, and the fluid completely saturated his clothing He remained in a comatose condition for several hours, and an irritating feature of the case was that from the first there was complete anæsthesia of the entire cutaneous surface On the third day after the accident there was hæmorrhage from the bladder, and this continued for forty-eight hours

In the discussion which followed the reading of this history, Dr E H Squibb, of Brooklyn, remarked that the hæmorrhage from the bladder seemed to indicate that the aniline oil was largely contaminated with carbolic acid or other bi products of the coal tar series It would be interesting, he thought, to note whether the peculiar effects produced in Dr Govan's case would result from poisoning by a specimen of perfectly pure aniline oil The President called attention to the remarkable relief afforded by solutions of carbolic acid in burns, an application which Dr Squibb had suggested to the profession a number of years ago, and Dr Govan said that since he had met with this case he had resorted to the use of aniline oil as a local anæsthetic with very gratifying success In the case of felons, it was possible to cut down to the bone without the patient experiencing any pain whatever, if the finger had previously been immersed in the oil for a short time

Dr Austin Flint read a paper of great interest on the subject of "*Suggestions in Regard to the Causation and Treatment of Acute Coryza*," which is to be published in the JOURNAL Dr Pancoast having asked in what way the active antiphlogistic treatment often used in colds, such as the production of free diaphoresis, etc , was efficient if the parasitic doctrine of the etiology of coryza were true, and whether this efficiency could be made to tally with the latter, the author of the paper replied that he did not see any inconsistency in the matter A full dose of opium, which was always part of the antiphlogistic treatment, was very beneficial in breaking up a cold, just as it was very beneficial in the incipient stages of cholera, where the parasitic origin of the disease could now be regarded as practically established Whether the opium was directly destructive to the parasite or not, he could not say

Dr Wm McCollom, of Brooklyn, read the report of a unique case of uniformly developed cirrhosis in both lungs The principal symptom of this very obscure case during life was progressive dyspnœa, and the only abnormal physical sign which the examination of the chest revealed was the existence of subcrepitant râles on both sides These were attributed by Dr J R Leaming, of New York, who saw the patient several times in consultation, to the presence of extensive pleuritic adhesions, both old and new At the autopsy, the following condition of affairs was found The kidneys were entirely normal, and the liver, with the exception of being possibly a little fatty, was also free from disease The pericardium contained two ounces of fluid, and the right ventricle was slightly dilated Otherwise the heart was perfectly healthy The thoracic aorta was also normal The lungs were of a dark gray or brown color, and floated in water The parenchymatous structure of both lungs was very hard and dense, and creaked under the knife There was no evidence of acute pneumonia, and no cavities were found The only adhesions discovered were two slight ones at the apex of the right lung, and they were evidently of very long standing

Prof Flint stated that he had personally seen the case once, and that he remembered it perfectly He had not been aware before that the patient was dead, but he was very glad to know the result of the autopsy When he made the examination of the chest in consultation with Dr McCollom he could discover nothing but the presence of a moist râle on both sides He then felt sure that the patient had disease of the kidneys, and requested specimens of the urine When, however, the examination of the latter gave a negative result, he felt at a loss in regard to the case, and asked that he might be permitted to see the patient again The condition of the lungs found after death completely explained the progressive dyspnœa, and at the same time it served to illustrate the inadequacy of physical signs under certain circumstances The remarkable point about this case was the equal development of the cirrhosis in both lungs Almost invariably the condition was much more marked in one lung than the other, so that the difference between the two sides of the chest was very apparent. The existence of moist râles in connection with a normal condition of the heart seemed to him to positively indicate kidney disease, and he was therefore surprised to find that the urine gave no evidence of this. On the whole, therefore, he considered it a very interesting case, and the specimens that had been presented by Dr. McCollom he believed were unique. He thought it also worth while, in this connection, to call attention to the mechanism of subcrepitant râles. One observer, as the history showed, had referred these rales in the present case to the existence of pleuritic adhesions. From the result of the autopsy, however, it was pretty evident that the subcrepitant râles were produced in the smaller bronchial tubes, and not in the pleuræ.

At the request of the President, Dr. Pancoast addressed the Association, taking for his subject, "*Some Points in Surgical Practice and Surgical Anatomy.*" He spoke first of what he called the "antiphlogistic touch of the therapeutic knife." If he saw a patient early enough, he said, this enabled him to say with almost absolute certainty that there would be no abscess. He exhibited the little knives which he had devised, which puncture, but do not cut, and which leave no scar, he said that with one of them he punctured the part in numerous places, and let the dead blood out. The method was applicable to tumors of almost any kind, as it afforded the best possible means for deep-seated blood letting of the part. The moment a bubo, or other gathering, became hard and refused to yield to the action of local applications, he freely punctured it with this antiphlogistic knife, and occasionally he said he found that there would be a drop of pus on the point. By this method he had even cured some cases of goitre, both cystic and fibroid, or at least rendered the growth so small that it gave no further trouble. He also gave internal remedies, however, such as Donovan's solution and iodide of potassium, with the addition of cinchona or whisky, if the patient's condition required it.

The next point was one in connection with the surgical anatomy of the face, viz. the special value of the malar bone, which was often overlooked by surgeons. It was one of the hardest bones of the whole skull, and it therefore served as a great protection, while if it could be saved, much deformity of the face could be prevented. In excision of the superior maxilla, consequently, he always made it a point to leave this bone in position, and he then proceeded to describe the operation which he had devised for this purpose. This consisted in a double curved incision, and, after turning back the soft parts, inserting a chain saw through the spheno maxillary fissure, and so cutting through the articulation of the superior maxillary with the malar bone. In this connection he related the case of a lady with a rapidly-growing carcinoma of the face, upon whom he performed this operation, notwithstanding the fact that she was five months pregnant. In two days she had recovered from it, and she afterwards went on to full term without any further trouble.

The value of the malar bone in protecting the brain from injury was well illustrated in the case of a boy, from whose face he extracted the breech-pin of a gun which had been imbedded in it without any one's knowledge for eleven months. The gun had exploded in the lad's hands, knocking him senseless, and the breech pin had buried itself so completely in the tissues that its presence was never suspected by the physician who attended him. This case taught us that under such circumstances we should always examine carefully for powder in the skin, and also make sure some part of the gun has not been imbedded in the face. Although this would seem like a very extraordinary case, it was not unique, similar ones having been reported by the late Dr. J. R. Barton, of Philadelphia, and by a surgeon to one of our ophthalmic hospitals.

Dr. Pancoast next gave some account of his treatment of varicocele, which he said he had seen successfully practiced in more than four hundred cases. It is very simple, and therefore in marked contrast to that so much in vogue in New York, which involved a cutting away of a portion of the scrotum. He did not think the latter a philosophical procedure, because it merely shortened the bag in which the enlarged veins are contained, and this could be more efficiently done by suspending them in a muslin bag, because the latter was indistensible, while the shortened scrotum, consisting of elastic tissues, would gradually stretch more and more, so that the trouble would eventually return. This procedure did not, therefore, go to the root of the evil. Still more complicated and serious was the operation described by Mr. Lee in the *Lancet*, of April 18, 1885, in which he cut open the scrotum and lifted out the veins of the spermatic cord. In both of these operations there was no little danger of erysipelas setting in. In his own operation the patient was cured in three or four days, instead of as many weeks. It consisted of transfixing the scrotum with a sailmaker's needle (which had a good point, but no sharp edges), and passing between the vas deferens and the veins a strong silk ligature, which, having been carried around the latter, was then brought out at the point of insertion. The ends of the ligature were finally secured tightly over a button of German silver or zinc, and the veins being thus strangulated, the ulcerative process went on rapidly.

The other subjects touched upon by Dr. Pancoast were the treatment of the urethral stricture by his urethratome, modeled upon Mr. Symes' instrument, with the cutting followed up by a regular and prolonged course of dilatation, in connection with which he exhibited a metallic catheter bougie, devised by himself, which had an olive shaped extremity for the purpose of preventing puckering of the mucous membrane, the advantages of black silk sutures, which were the strongest made, and, being dyed with iron, possessed marked antiseptic properties, the treatment of ununited fractures of the fore arm and leg, and of fractures of the neck of the femur in the aged, the treatment of incurvation of the penis by an operation devised by his father in which a V-shaped piece was cut from the cavernous bodies a short distance behind the glans, and the utility of entirely extirpating chancres with the knife. He also exhibited specimens showing the results of exsections of the shoulder and hip-joints, with the development of remarkable reparative processes.

It was decided that the next special meeting for scientific purposes of the Fifth District Branch should be held at Yonkers, on the second Tuesday of March, 1886. The prospects for the second annual meeting of the parent Association, to be held in this city in November, are unusually brilliant, and with four days for the purpose, upon three of which there will be three sessions each, there can be little doubt that much good work will be accomplished. P. B. P.

INTERNATIONAL MEDICAL CONGRESS

To the Editor of the Journal:

Dear Sir:—Dr. R. A. Kinloch, of Charleston, S. C., occupies nearly three pages of the *Medical News* in an effort to prove that he alone was right and that all the other members of the Committee of Arrangements, who were present in New York on September 3d, were utterly wrong. Dr. Kinloch frankly acknowledges that he did not approve of the action of the American Medical Association in creating the enlarged Committee, and states that he only accepted a position on the Committee because he "recognized the obligation to serve the Association and indulged the hope of sustaining a spirit of harmony." This quotation looks well in print but its beauty is marred by the fact that the conduct of its author was not in accord with its spirit. If his course of action as a member of the Committee implied any obligation on his part, it apparently implied an obligation to serve a coterie of personal friends regardless of the rights or wishes of the American Medical Association, and so far from endeavoring to sustain a spirit of harmony, he persistently endeavored to obstruct the proceedings of the Committee by frittering away valuable time with trivial objections. The members of the Committee, however, understood the peculiar position in which Dr. Kinloch had been placed, and listened to him with attention, and then voted and acted for the best interests of the American medical profession.

Dr. Kinloch complains that a letter which he forwarded to the temporary Secretary was not read before the meeting of the Committee in Chicago, or embodied in the report which was recently published. I had received nearly two hundred letters at that time, some of which were similar in tenor to Dr. Kinloch's, but the great majority expressed approval of the action of the Association. To have read them all would have occupied the whole day. The Committee therefore directed me to read the one which had been received from Dr. Austin Flint, Sr., the eminent President of the Congress.

Dr. Kinloch's chief grievance, however, appears to be that the Committee exercised its right of filling a number of the vacancies which had been made in several of the important offices of the Congress by the resignation of a number of those who had been previously appointed. According to Dr. Kinloch, many of those resignations were merely tentative in character, and not intended to be *bona fide*, and the appointment of new men to the important places was a manifestation of vindictiveness on the part of the Committee which Dr. Kinloch could not condone. To use Dr. Kinloch's own words: "The work of filling the so called vacancies in the most important offices had continued without any question as to the acceptance of resignations. The spirit of vindictiveness (I regret to have to use the term) under the presumed offence given by the parties who had proposed to withdraw, seemed to me to be irrepressible; so I could not consent to occupy the position which had been assigned me."

I was informed several months ago that many of the published resignations had been forwarded in a half hearted manner, and that many more had been procured by earnest personal solicitation, but that none of the distinguished resigners intended to personally refrain from participation in the International Medical Congress. Their aim was to compel the Association to reinstate the Original Committee with full power to reinstate themselves and their New Code friends in office, to give four positions to one, five to another, six to another, and so on to the end of the chapter. I was inclined to doubt the correctness of this at first, but Dr. Kinloch has corroborated it by practically admitting that many of the resignations were intended only for dramatic effect. Dr. Kinloch and his friends understand by this time, however, that the Committee of Arrangements appointed by the American Medical Association could neither be cajoled nor intimidated. That Committee was created for a special purpose—to provide a preliminary organization for the Congress. Its work has been performed without fear and without malice. The general officers of the Congress and the officers of the various Sections have been appointed and have organized an Executive Committee, who will now take charge of all minor details. Some further vacancies may occur by death or otherwise, but they will be filled by competent and thoroughly representative men who are in accord with the medical profession of the whole country.

John V. Shoemaker, M.D.

Philadelphia, Oct. 20, 1885.

THE AXIS-TRACTION FORCEPS

To the Editor of the Journal:

Dear Sir:—I must confess some surprise in reading the criticism appended to my "Correction" published in Oct. 17th No. of this journal. In the first place, if any one is disingenuous it is certainly the writer of this criticism, who persists in saying, that I did not give credit to Dr. Felsenreich, in spite of the fact, that I have distinctly published and publicly stated, the disputed forceps to be the Alexander Simpson's, with Tarnier's axis traction rods attached by Dr. Felsenreich's buttonhole joint! In the second place, the writer stated that the disputed forceps "is merely a modification of Felsenreich adaptation of Alexander Simpson's axis-traction forceps," and then in reference to Dr. Felsenreich's instrument contradicts himself by saying: "*The forceps to which the* axis traction rods were attached, was the *Wiener Schulzange*, the original model of the Sir James Y Simpson instrument "

Hence, for the benefit of the writer, I will merely reiterate what I have already so often declared and published, that I have now adopted the Alexander Simpson blades

Finally, *I* have entered into communication with Dr Felsenreich on the subject," and moreover, am happy to state, that in addition to this, I have sent him copies of *all* the published articles, with the urgent request that he inform me at once of his opinion, which I shall be pleased to publish if necessary

Respectfully, L E NEALE M D
Baltimore, Oct 20th, 1885

NECROLOGY

SAMUEL GLASGOW ARMOR, M D , LL D

Dr Samuel G Armor died at his home in Brooklyn, on October 27, in the sixty-eighth year of his age He was born in Washington Co , Pa , of Scotch-Irish parentage, on January 29, 1818, and his parents removed to Ohio soon afterwards He received his academic education at Franklin College, Ohio, and in 1872 this institution conferred upon him the degree of LL D

He studied medicine with Dr James T Irvine, of Millarsburg, O , and graduated from the Missouri Medical College, of St Louis, in 1844 Soon after graduating in medicine he settled in Rockford, Ill , and in 1847 received an invitation to deliver a special course of lectures on physiology in Rush Medical college, of Chicago In the following year he was called to the Chair of Physiology and Pathology in Rush Medical College, but declined it because he had just accepted the same position in the Medical Department of the University of Iowa, at Keokuk Subsequently, however, he resigned this position to take the Chair of Natural Science in the University of Cleveland In July, 1853, he was awarded a prize by the Ohio State Medical Society for his essay on the "Zymotic Theory of the Essential Fevers " During the same year he accepted the Chair of Physiology and Pathology in the Medical College of Ohio, having resigned his position in the University of Cleveland

In 1834 he was transferred to the Chair of Pathology and Practice of Medicine About two years afterwards he resigned this position, and removed to Dayton, O , though having accepted the Chair of Pathology and Practice of Medicine in the Medical College of Missouri, of which he was an alumnus In 1861 he removed to Detroit, having accepted the Chair of the Institutes of Medicine and Materia Medica in the University of Michigan Here he remained until 1866 when he removed to Brooklyn, having accepted the Chair of Therapeutics, Materia Medica, and General Pathology in the Long Island College Hospital In 1867, Dr Austin Flint having resigned the Chair of Practice of Medicine and Clinical Medicine, Dr Armor was transferred to this position, which he retained until his death

ASSOCIATION ITEMS

INFORMATION OF IMPORTANCE TO ALL MEMBERS OF THE AMERICAN MEDICAL ASSOCIATION

MEMBERSHIP —Every one who attends an annual meeting of the Association as a delegate pays at that time five dollars, and thenceforward becomes a Permanent Member He continues as such as long as he remains in good standing in the body from which he was originally sent as a delegate As a Permanent Member, he must pay *Five Dollars Annually*, when notified by the Treasurer, whether he attends the meetings of the Association or not Payment of annual dues entitles him to receive the weekly JOURNAL of the Association for one year

MEMBERS BY APPLICATION are such as have not become Permanent Members in the manner above indicated, but apply to the Treasurer for membership, forwarding at the same time to him five dollars and the certificate of the President and Secretary of their State or local society, that they are in good standing in such society They pay five dollars annually thereafter, when notified by the Treasurer Members by application can join the Association at any time, and they receive regularly the weekly JOURNAL

WHEN DUES ARE PAYABLE —The annual dues from Permanent Members are payable to the Treasurer at the time of the annual meeting of the Association, or immediately thereafter The payment entitles the member to receive the JOURNAL for one year from the following July Payment for 1885, for example, entitles the member to the JOURNAL from July, 1885, to June, 1886, inclusive

As some of the members have not yet forwarded to the Treasurer their dues for 1885, they are urgently requested to do so at an early day Having entered upon another year of membership, they are morally and legally responsible to the Association for the payment of their annual dues, having already received for three months of the new year—1885—the JOURNAL of the Association

SUBSCRIPTIONS TO THE JOURNAL, from those who are not members of the Association, should be forwarded to the office of publication, 65 Randolph Street, Chicago, and not to the Treasurer, but *all payments of annual dues must be forwarded to the Treasurer, Lock Box 1274, Philadelphia*

DEATHS —When a member of the Association, who is in regular receipt of the JOURNAL, dies, his family or other representatives are requested to inform the Treasurer at once of the fact

PAYMENT OF DUES FOR PREVIOUS YEARS —As a few members of the Association are still in arrears for payment of dues for 1883 and 1884, they are requested to forward at once to the Treasurer the amounts for which they are indebted to the Association

TRANSACTIONS OF THE ASSOCIATION —These annual volumes, thirty three in number, to 1882 inclusive, may still be obtained, with few exceptions, from the Treasurer, at reduced prices The Index to these volumes will be forwarded on receipt of *One Dollar* An opportunity is thus afforded to complete sets of these valuable publications, or to obtain important papers and works which are daily becoming scarce

Richard J Dunglison, M D, *Treasurer*
Lock Box 1274, Philadelphia, Pa

NINTH INTERNATIONAL MEDICAL CONGRESS, WASHINGTON, D C, 1887

[The following are some of the more important Rules adopted relating to the preliminary organization of the Congress —Ed]

1 The Congress shall consist of members of the regular profession of medicine, who shall have inscribed their names on the register and shall have taken out their tickets of admission, and of such other scientific men as the Executive Committee of the Congress may see fit to admit

2 The dues for members of the Congress shall be ten dollars each for members residing in the United States

There shall be no dues for members residing in foreign countries

Each member of the Congress shall be entitled to receive a copy of the "Transactions" for 1887

3 The Congress shall be divided as follows, into seventeen Sections

I General Medicine
II General Surgery
III Military and Naval Surgery
IV Obstetrics
V Gynæcology
VI Therapeutics and Materia Medica
VII Anatomy
VIII Physiology
IX Pathology
X Diseases of Children
XI Ophthalmology
XII Otology and Laryngology
XIII Dermatology and Syphilis
XIV Public and International Hygiene
XV Collective Investigation, Nomenclature, Vital Statistics, and Climatology
XVI Psychological Medicine and Diseases of the Nervous System
XVII Dental and Oral Surgery

4 The General Meetings of the Congress shall be for the transaction of business and for addresses and communications of general scientific interest

* * * * * * * *

8 The official languages of the Congress shall be English, French, and German

In the meetings of the Sections, no member shall be allowed to speak for more than ten minutes, with the exceptions of the readers of papers and those who introduce subjects for discussion, who may each occupy twenty minutes

9 The rules and programmes shall be published in English, French, and German

Each paper and address shall be printed in the "Transactions" in the language in which it was presented, and preliminary abstracts of papers and addresses also shall be printed, each in the language in which it is to be delivered

All discussions shall be printed in English

10 The President of the Congress, the Secretary-General, the Treasurer, the Chairman of the Finance Committee, and the Presidents of the Sections, shall together constitute an Executive Committee of the Congress, which Committee shall direct the business of the Congress, shall authorize all expenditures for the immediate purposes of the Congress, shall supervise and audit the accounts of the Treasurer, and shall fill all vacancies in the offices of the Congress and of the Sections This Committee shall have power to add to its membership, but the total number of members shall not exceed thirty A number equal to one third of the members of the Committee shall constitute a quorum for the transaction of business

11 The Officers of the Congress shall be a President, Vice-Presidents, a Secretary-General, four Associate Secretaries, one of whom shall be the French Secretary, and one of whom shall be the German Secretary, a Treasurer, and the Chairman of the Finance Committee

12 The officers of each Section shall be a President, Vice-Presidents, Secretaries, and a Council

13 The officers of the Congress and the officers of the Sections shall be nominated to the Congress at the opening of its first session

---

MISCELLANEOUS

Washington Obstetrical and Gynecological Society —At the annual meeting of this Society, held on October 16, 1885, the following officers were elected for the ensuing year *President*, A F A King, M D, *Vice-Presidents*, W W Johnston, M D, J Taber Johnson, M D,, *Recording Secretary*, C H A Kleinschmidt, M D, *Corresponding Secretary*, S S Adams, M D, *Treasurer*, G B Harrison, M D

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM OCTOBER 17 1885, TO OCTOBER 23 1885

Col T A McParlin, Surgeon, directed to wait further orders in New York City (Letter from A G O, Oct 19, 1885)

Lieut Col E P Vollum, Surgeon, assigned to duty as attending surgeon headquarters Dept Platte, Omaha Neb, relieving Asst Surgeon Wm C Shannon (S O 103, Dept Platte, Oct 15, 1885)

Major Anthony Heger, Surgeon, directed, in addition to his present duties as member of Army Medical Examining Board, now in session in New York City, to perform the duties of attending surgeon in that city (S O 240, A G O, Oct 19, 1885)

Major Joseph C Bailey, Surgeon, granted leave of absence for twenty days (S O 225, Dept East, Oct 19, 1885

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE TWO WEEKS ENDED OCTOBER 24 1885

Long, W H, Surgeon, to proceed to Detroit, Mich, and assume charge of the Service Oct 23, 1885

Austin, H W W, Surgeon, to proceed to Albany, N Y, on special duty Oct 14, 1885

Williams, L L, Asst Surgeon, relieved from duty at Norfolk, Va, to proceed to Washington, D C, for temporary duty Oct 20, 1885

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N S DAVIS

PUBLISHED WEEKLY

Vol V Chicago, November 7, 1885 No 19

ORIGINAL LECTURES

A CLINICAL LECTURE ON LUMBAR ABSCESS[1]

BY EDMUND ANDREWS, M D , LL D ,

PROFESSOR OF CLINICAL SURGERY IN THE CHICAGO MEDICAL COLLEGE AND SENIOR SURGEON TO THE MERCY HOSPITAL

MERCY HOSPITAL CLINIC

SERVICE OF PROF EDMUND ANDREWS, M D , LL D ,
AND E WYLLYS ANDREWS, A M , M D

GENTLEMEN —This patient has a large interior abscess pointing in the right lumbar region There is no deformity to suggest caries of the spine, but the caries might exist without the deformity being yet developed The elder Gross put on record the statement that these abscesses always or nearly always spring from carious vertebræ, and with like uniformity terminate in death Erichsen and others are of the opinion that the causes are generally tubercle

Both these opinions are erroneous The connective tissue in the interior lumbar region is liable to inflammation and suppuration from various causes, just like connective tissue anywhere, and when it occurs, a lumbar abscess results, whether the bone is diseased or not Dr Gross based his opinion on post mortem statistics Now we should reflect that all important as dead-house studies are, yet the pathologist sees there only fatal cases, which differ in many respects from the thousands that recover, and do not appear before him Some dead-house pathologists do not bear this in mind, and judge the living cases too much by the post mortem conditions Certainly many cases of lumbar abscess recover under modern antiseptic treatment, and show no signs, either before or after, of tuberculosis However, do not look at this matter entirely from one side There is no doubt that in many cases caries does exist, and that part of these are tuberculous We live in a somewhat non tuberculous region as compared with the North Atlantic seaboard, tuberculous diseases here being, perhaps, thirty or forty per cent less frequent than there Hence I have no doubt that lumbar abscesses are less frequently tuberculous with us than with our Atlantic coast pathologists

However this may be, the patient before us is not proved to have either caries or tubercle There is no proof of any syphilitic diathesis, and the urine contains no albumen There is nothing to forbid the hope of entire recovery so far as external examination goes

The patient has been already subjected to four aspirations The object of this was two fold *First*, a considerable number of lumbar abscesses can be *completely cured* by from three to eight applications of the aspirator, and *secondly*, if these fail, we at least keep the sac collapsed for a considerable time, and thus enable it to contract its walls and diminish its magnitude When the aspirator method is successful in effecting a cure, you will observe that the pus grows more watery at each drawing, and finally may be almost pure serum In this case, as you remember, we have aspirated four times, washing out the cavity with carbolated water at the strength of two and one half per cent , without effecting any improvement in the pus I conclude that the aspirator plan will not be likely to succeed in this case, and we must proceed to treat it by the open method

Before the development of antiseptic surgery the opening of lumbar abscesses was greatly dreaded Abundant and melancholy experience had shown that immediately after the opening the pus of the vast interior cavern underwent putrefaction, and by its absorption rapidly poisoned the patient Hectic set in, exhaustion followed, and death early or late closed the case I recollect well a gentleman who kept at his office work in fair health until the abscess was as thin as paper, and about to break spontaneously In accordance with the doctrine then prevalent, I had postponed the opening to the latest possible moment Seeing the rupture was about to take place, I took him from his office still in apparent good health, gave him tonics, and opened the cavity A vast collection of pus rushed out, hectic soon followed, and in two weeks he was dead of blood poisoning Now, with antiseptic measures, all this terror has vanished like an ugly dream The internal caries, or tuberculosis, if present, may not be always curable, but the opening of the abscess is no longer a serious danger Let me impress it upon you that so far as lumbar abscess alone is concerned, it is only dangerous when it is so complicated in its internal burrowings that it mechanically prevents you from disinfecting and draining all parts of it We need here a bolder surgery than we have formerly practised to enable us to open up and tube the interior

You see this fluctuating tumor on the patient's right lumbar region, between the ribs and the crest of the ilium. It gives a succussion upon coughing like a hernia, but hernia rarely exists here, and besides, there is no resonance of air in it such as a hernia is likely to present. Still, at the beginning of these cases always test the contents with a small aspirator tube to make sure of the diagnosis. This fluctuating prominence is the outer sac, just under the integuments. A lumbar abscess pointing externally consists of an inner and an outer sac, connected by an isthmus or tube which is sometimes an inch in diameter and sometimes smaller than a pencil. As this outer sac is proved to contain only pus, it may be freely opened without fear, but this alone will not enable you to disinfect the interior sac. Injections thrown into it, even with some force, do not pass freely through the isthmus into the interior cavity. Opening the sac, therefore, widely, I search with my finger for the channel leading to the interior cavern. Usually it will be found just outside the common mass of the erector spinal muscles, where the thin fascia of the abdominal muscles emerges from under its border. Often the inner orifice will be found in the angle formed by the crest of the ilium with the spine. In this case, I find the channel just outside the erector spinæ, and on account of its size readily insert my finger into the inner cavity. I perceive that the latter is ovoid in form—about six inches long, and three inches in its shorter diameter. It is simple in shape, and presents no long passages extending out beyond the reach of my finger. The upper and posterior part extends a little up into a sort of pocket behind the right lobe of the liver, but the end of the pocket is a rounded cul de sac easily reached by the finger, and presenting no extension beyond.

---

[1] Delivered at the Mercy Hospital Chicago

The place where the kidney should lie is vacant. This does not mean that the kidney is destroyed, but only that the abscess, burrowing behind it, has loosened its posterior attachments, lifted it out of the hollow of the ribs, and crowded it with other tissues forward and inward. All along the inner border of the cavity my finger explores the side and part of the front of the spinal column. Here is the place to search for caries. After carefully exploring every part, I find that the bone is everywhere covered with a sound periosteum, which is not thickened as in bony inflammation, and reveals delicately to the finger the natural curves and hollows of healthy vertebræ. I find no naked bone anywhere, and no change of form. These vertebræ are therefore sound. This exploration is important, both for diagnosis, and because in some instances a sequestrum can be found and removed, and in others carious spots can be safely scraped. An examination of the inner surfaces of the ribs shows these bones also to be sound.

This, then, is purely an abscess of the soft parts, and quite hopeful of cure. I now wash it out clean with an antiseptic solution, put in a drainage tube reaching well into the depths of the inner cavity, and dress it antiseptically. You will find that this patient will have no hectic, she will have a good appetite, she will improve in color and flesh, and if the drainage and antiseptic washing be faithfully carried out, she will probably recover.

No. 6 Sixteenth St., Chicago.

ORIGINAL ARTICLES

THE TREATMENT OF PULMONARY DISEASE BY PNEUMATIC DIFFERENTIATION.

BY ALFRED S. HOUGHTON, M.D.,

OF CHICAGO.

A novelty in therapeutics, be it a drug or a device, is liable to suffer one of two fates, *i. e.*, disuse from merited distrust, or misuse from misplaced confidence and unwarranted enthusiasm. If the pneumatic cabinet, which is open to the reproach of novelty, justifies its existence by a promise of sound usefulness, it is to be hoped that the profession will save it from both of these fates. Its proper place and uses should be fully determined by competent and reliable men, and it should be prevented from falling into the hands of unscientific investigators. That it has a useful place among the weapons that comprise a physician's armament, it is the object of this paper to show, but just how extensive its field is, remains for time and thorough investigation to demonstrate.

Dr. Vincent Y. Bowditch, in the *Boston Medical and Surgical Journal* of July 16, and the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, of August 1, confirms the cases reported by Dr. H. F. Williams in the *Medical Record* of January 17. Dr. Williams' further report of these cases and others before the Climatological Society appears in the *New York Medical Journal*, of October 3.

The cabinet is an instrument by means of which the following results are sought:

1st. The strengthening and developing of weak and poorly expanded lungs.

2d. The arrest of pulmonary disease in its earlier stages.

3d. The prolongation of life with comparative comfort in those cases of pulmonary disease in its later stages where a cure is impossible.

It is well determined that high altitudes have a marked influence over pulmonary disease. It has always seemed to me that John Hughes Bennett was right in saying "that if the process employed by nature could be discovered, and then imitated by art, we might ultimately arrive at the true principle of cure." Acting upon the belief that it was the influence of atmospheric pressure that gave to "high altitudes" their beneficial effects, the cabinet was constructed.

The cabinet is an air-tight chamber, in which the patient sits or reclines, breathing from the outside through a flexible tube. We exhaust a small portion of the air about him, causing a deep, easy and pleasant inhalation, filling every part of the lungs with the air or spray, producing a stronger and more regular circulation, bringing the blood into complete relation with the oxygen of the air, and introducing the medication in every recess with ease; we have now simply aided the patient to take a deeper breath than he otherwise could. We can then either produce a compression of the air about the body, compelling an evacuation of the lungs, and repeat the former movement, or we can continue the rarefied condition and let the patient expel the air by his own efforts In this latter way we produce the same effect upon the lungs that a dumb bell does upon the muscles of the arm, for the effort is to *exhale* and not to inhale We thus have such complete control over the movements of respiration, that we can increase or diminish the force, frequency and depth of each breath at our pleasure, and without the slightest effort or discomfort on the part of the patient

In addition, the mucus which patients attempt to remove by coughing, and which they can often only detach in small portions and sometimes not at all, is by this method loosened and easily expectorated The lungs can also be medicated and disinfected in a better manner than by any other method The Semple Inhaler is the best spray-producing apparatus I have ever seen

The following are the solutions that I have found useful, the last four being prepared expressly for Semple's Atomizing Inhaler by Parke, Davis & Co The vehicle consists of fluid cosmoline, and in combination with various oils and balsams, the spray being more like a smoke

Solution No 1

℞ Sol Lugol	ʒss
Glycerine	℥iii
Aquæ ad	ʒx
M	

No 2

℞ Hydrarg Chl cor	gr iv
Ammon Chl	gr x
Glycerine	℥ii
Aquæ ad	℥viii
M	

No 3

℞ Ammon Chl	℥ii
Glycerine	ʒiss
Aquæ ad	℥iv
M	

No 4

℞ Calc Hyphophos	ʒi
Glycerine	℥i
Aquæ ad	℥iii
M	

No 5

℞ Sol Lugol	20%
Sol Acid Carbol	1%
Ext Hamamelis	aa ℥i
M	

No 6

℞ Ol Picis liq	ʒss
Fl Cosmoline	℥i
M	

No 7

℞ Ol Eucalypti	ʒi
Fluid Cosmoline	℥i
M	

No 14

℞ Acid Carbol	gr x
Fluid Cosmoline	℥i
M	

No 15

℞ Fluid Benz Comp	℥i
Tinct Cosmoline	℥ii
M	

These last should always be diluted with cosmoline So far as the medication is concerned, we have in the cabinet a means by which agents can be more easily, thoroughly, and deeply introduced than by other means, as is evident from the following facts

Volumetric tests have shown us that by the use of the cabinet the amount of air inspired during each inspiration is increased from 50 to 100 per cent over the amount inspired during normal tranquil respiration This air is saturated with the medicament, as already explained Repeated and exact hygrometric and manometric tests have shown that if air is thus (unconsciously to the patient) introduced at a pressure of five-tenths of an inch, the effort to expel the same, or the expiratory movement, as well as the friction and inertia of the air passages, is equal to five inches, or an increase of 950 per cent, or a corresponding diminution of moisture in the air inhaled, against this, however, we have to consider the increase in moisture carrying capacity due to higher temperature in the lungs, taking this into consideration, we have between the inspiratory and expiratory movements a reduction in vapor carrying capacity and a consequent condensation of vapor at the farthest point reached by the inspired air, and as our volumetric measurement has shown that the entire air capacity of the lungs is occupied, the entire aerating surface must be bathed with the condensate, numerous experiments have shown this to amount to about twelve per cent of the medicament used Thus it will be seen that the effect of differentiation alone is not by any means the only beneficial action of the cabinet

In contemplating the differential process more especially with reference to the respiratory movements and their effect upon the pulmonary capillary circulation, I have been so impressed with the intimate connection between them that I have come to conclusions that, while they are apparently at variance with much that has the sanction of investigation, nevertheless seem to me to harmonize with and rationalize much that is not very clear Instead of regarding the initial steps in the tuberculous process as due to external and specific causes, I have come to regard primary pulmonary infiltration, whether it be perivesicular or intervesicular, as the result of a simple mechanical law, *i e, that force operating behind and resistance offering in front results in an unvarying manner, dependent upon the amount of force and the extent of resistance* The force in this case is the right ventricle, the resistance resides in the pulmonary capillaries

But here comes into consideration another force which we shall find is to exert no small influence, viz the movements of respiration, for they may act to either increase the force operating behind or the resistance offering in front, the result being very different in one case from what it is in the other Atmospheric pressure acting upon the pulmonary capillary circulation can effect either its retardation by antagonizing the action of the heart, or its acceleration by overcoming the resistance of the capillaries The right ventricle alone is physically unable to propel the blood through the pulmonary capillaries with sufficient force to bring back a sufficient quantity to the left auricle to maintain the circulation (Draper) When the pneumogastric nerve is cut and the movements of respiration retarded and eventually stopped, we find the lungs solidified in a peculiar manner, for they are smaller and empty of air (Dalton)

What, then, is the force that carries on and perfects the capillary circulation through the lungs? If we produce artificial respiration in an animal in which the movements of respiration have been abolished, and in which the capillary engorgement has occurred, together with arrest of the heart, we will not only overcome the engorgement but reestablish the cardiac pulsations (Dr Cartwright, *Boston Medical Journal*, Jan 7th, 1852) It is therefore *proved* that the movements of respiration are the mechanical aid in complete pulmonary capillary circulation. Now comes into consideration whether inspiration or expiration is the essential force in propelling the blood to the left auricle

[Note —It is held that during inspiration the effect of the diminished atmospheric pressure within the thoracic cavity not only causes the expansion of the lungs and inspiration of air, but also the *aspiration* of blood into the thoracic blood vessels, that this does occur to a certain extent is certainly proved, but not to the extent of affecting the pulmonary capillary circulation, is evident when we consider to what advantage the atmospheric pressure acts through the open trachea and bronchi upon the air vesicles, as contrasted with the closed and resisting tissues about the systemic circulation. Foster, in his work on Physiology, devotes several pages to this subject, but one important fact is overlooked, and that is, that no amount of rarefaction about a vessel will cause its expansion unless its cavity communicates with the atmosphere, for it is the pressure of the atmosphere that compels the expansion. To talk about the aorta being increased in calibre by the effort of inspiration, seems absurd, and, when we come to consult the diagram he gives of the effect on blood pressure and its relation to the intrathoracic pressure produced by the respiratory movements, we find that the opposite from what we had been led to expect, was true. He says: "When, however, the respiratory undulations of the blood pressure curve are compared carefully with variations of intrathoracic pressure, it is seen that neither the rise nor the fall of the former are exactly synchronous with either diminution or increase of the latter." The fact is, that the rise in arterial tension follows closely the inspiratory act, and that the fall corresponds with the expiration. What does this teach? That inspiration is a *force*, that it is the "*prime* force in originating the circulation" (Draper). My experiments with atmospheric pressure during the last two years compel me to this conclusion.

How can atmospheric pressure affect cerebral circulation, protected as it is by the unyielding calvarium? Is it not a much more rational explanation to give to the increased arterial tension due to inspiration, the position of cause in the cerebral wave mentioned by Foster?]

Having decided that inspiration is *the* movement that furthers the capillary circulation through the lungs, we now come to consider the effect of expiration. If we study the microscopical appearances of a pulmonary lobule, we find that the capillaries dip down between the alveoli, and are so arranged that the expansion of the air vesicles *must compress* them, and that the contraction of the air vesicles must not only allow them to be fully filled with blood from the right heart, but compel a temporary stasis of the blood in them, owing to the increased resistance which the absence of inspiration permits. It is shown, then, that inspiration acts to further the pulmonary circulation by removing the stasis that has occurred during expiration, and overcoming the capillary resistance in front, but the moment the movement of inspiration ceases, the stasis re-occurs, for the force that has been acting ceases, the diaphragm begins to rise, the ribs to fall, and the atmospheric pressure is overcome.

What happens then, when the inspiratory movement is not vigorous? By vigorous, I mean normal vigor, sufficient to expand every air-cell, but not forcibly. When any portion, no matter how small, is not fully expanded? There must be stasis, and attendant upon stasis transudation, dependent upon the extent of non-expansion and its area. Now, where will such transudation occur? We have shown that when the movement of inspiration is not exerted in any portion of the lungs, no matter how small, it increases the resistance, and consequently the point of deposit must be on the cardiac side of the resisting point, into the weakest structure, therefore *perivesicular*.

But we have another condition when the movement of inspiration *is* not only vigorous, but forcible, when the heart's action is also vigorous, when force is augmented by force, but now the point of resistance has passed to the thin wall of the fully expanded air cell, and the rupture and deposit takes place there, and we have *intervesicular deposit*. In other words, we have in the first case, a passive condition of the lungs acted upon by a force that alone is unequal to the task of overcoming the resistance, and the stasis that follows results in perivesicular deposit. In the second case, we have an active condition of the lungs acted upon by an accelerated heart, increased primarily by the inspiratory movement, but resisted secondarily by the same movement having been converted from force into resistance, resulting in intervesicular deposit.

[NOTE.—To make this latter point clear, let me remind the reader that in forced inspiration we have, as is seen in emphysema, an exsanguinated condition of the alveolar capillaries, imagine, therefore, a vigorous inspiratory movement not sufficient to cause emphysema, but such as one takes when subjected to sudden cold, at a time when the heart's action is rapid and forcible, as the air cell expands it augments this force, especially, as towards other lobules, in which the expansion being forced, it reaches the point when it becomes resistance. I do not mean that under such circumstances transudation always occurs, but when for any reason it does occur, it must be into the air cell itself.

Let x represent the heart's force, y the inspiratory vigor, and z the capillary circulation. Then we may represent these conditions by the following equations:

$$x + y = z$$
$$x - y < z$$
$$x^2 + y > z$$
$$x < y + z$$

With perfect equilibrium between force and resistance, no deposit can occur. Deposit once having occurred, the subsequent changes depend on varying influences. The bearing of this upon pneumatic differentiation is clear, because, if correct, the rational treatment (theoretically) is to restore the equilibrium between force and resistance, and it naturally follows that the nearer we approach to the condition of primary deposit the more readily can aid be afforded. Let us see then if *theory* is borne out by experience.

It may be here objected that the pressure used in the cabinet must be greater than vigorous inspiration, and therefore further the production of intervesicular deposit I do not doubt that this is possible, if the pressure be carried up to two or three inches, but this is never done, and further coughing exerts more strain on the air cells than is possible in the cabinet, further, it is shown that the heart is not accelerated

Dr Williams reported in the *Medical Record*, of January 17th, sixteen cases of primary deposit and acute phthisis, ten of whom recovered It was my good fortune to be familiar with the majority of these cases, and to examine them, and it is hardly necessary to state that the nearer their condition approached the primary deposit the more complete was the removal of the adventitious sounds

In reporting the following cases, I shall classify those of phthisis more in accordance with their acuteness or chronicity (that is nearness to primary deposit) than with reference to their anatomical or pathological characteristics, accordingly I shall speak of acute phthisis as consisting of three stages the first extending from the initial infiltration to the beginning of the febrile movement, the second extending from the advent of the febrile excitation through the period of deposit extension to the period of septic disintegration, which constitutes the third stage of excavation I shall include under the term chronic phthisis, those cases of chronic pleurisy and chronic pneumonia that have fibroid pulmonary deposit and also syphilitic phthisis I consider the *first stage* of phthisis as present when the slightest evidence of diminished pulmonary expansion and respiratory vigor is present, and it is here that the influence of pneumatic differentiation, together with action of well selected agents, cuts short the impending process I regard the second stage as beginning when the temperature runs above 100° or 101°, it is here that antiseptics and germicidal agents must be pushed to the limit of prudence if we hope to prevent the development of the third and *last* stage, when septic degeneration and excavation have taken place Dr Williams reports five recoveries in patients who had reached this stage Such results seem almost incredible, and are shown by further reference in his last publication to be exceptional, yet these undoubted results inspires the hope that by judicious selection of 'antiseptic," "tonic," or perhaps "nutritive" agents we can at least prolong the lives of such patients in comparative comfort

The following table embraces all the patients that I have independently treated with the Pneumatic Cabinet, ten of whom were treated with a primitive apparatus in Milwaukee These ten embrace three of primary deposit, two of second stage, one of third stage, and one of chronic phthisis, two of whom died

	No of Cases	Recoveries	Improvements	No Improvement	Result Unknown	Deaths
Chronic Bronchitis	5	1	1	1	2	
Asthmatic Bronchitis	2		1	1		
Asthma	1	1				
Acute Phthisis first stage	9	4	4	1		
second stage	4		3	1	1	
third stage	5		1	1		2
Chronic Phthisis	7		2		3	2
Unresolved Pneumonia	1		1			
Total	34	6	13	5	6	4

Number in whom result is not known, six, of whom six took less than three treatments each

Of the four cases of acute phthisis, first stage, that were improved, two are still under treatment, one is in California for the winter, and the other took treatment in Milwaukee up to the time the apparatus was useful, the one case that did not improve only took nine treatments Of the three cases of phthisis in the second stage that improved, two are still under treatment, one went to California a year ago and I have not heard from him since The case of third stage phthisis that is marked as improved, was already almost fully recovered when she came to me through Dr Casselberry, of this city, she took seven treatments, and the doctor thought her slight cough was better, and noted an increase in expansion of half an inch The two cases of chronic phthisis that were improved were both fibroid in character, one has gained ten pounds in weight and half an inch in expansion, the other about half an inch in expansion The deaths in chronic phthisis occurred in advanced cases, one of fibroid phthisis, with bronchiectasis, the other of syphilitic phthisis

One death in the third stage occurred in a case in which the symptoms of septicæmia were the most violent I have ever seen, the other was in a case in which decided and continued improvement was present so long as the apparatus was air-tight The following is the history

Mrs E O, aged 40, married, present weight 130 pounds First seen August 21, 1884, with Dr O W Carlson, Milwaukee History of pneumonia two years previously, followed by great emaciation, night sweats, cough, with profuse expectoration and hæmoptysis Physical examination revealed dulness, increased vocal fremitus and resonance, with bronchophony lower lobe of left lung Temperature, A M, 100, P M, 101 2, pulse 100, respiration 29 First treatment was solution No 2, under pressure of two-tenths of an inch for ten minutes This treatment was continued thrice weekly, the pressure being gradually increased to seven tenths of an inch

November 6th her weight was 139 pounds Temperature had been normal for two months, and respiration 16 The cabinet gave out Oct 29th, and on the 13th of November her temperature was 101 2, after that she gradually grew worse and died last spring

Of the four cases of recover in first stage phthisis all but one had more or less deposit, she complained of soreness of the chest, with cough, and as her brother had died of phthisis, her friends brought her to me for the purpose of strengthening her lungs She is now perfectly well, the moral effect of the treatment has removed the morbid fear she had of consumption The other cases I will give as full an account of as space will permit

Case I —Henry B, aged 15, came to me through Dr P C Jenson, who will give a full account of the case (See following article, this number, p 510)

May 29th Henry weighed 72 pounds, and was quite anæmic Physical examination showed marked infra clavicular depression, increased vocal fremitus and resonance, dulness and diminished respiratory murmur, and cog-wheeled respiration on the right side at apex and infra clavicular region Temperature, A M , 97 8, P M , 100

June 3d, marked improvement, weight 73½ lbs Temperature, A M , 98, P M , 100

June 10th, continued improvement, weight 75½ lbs Temperature, A M , 98 5, P M , 99

June 23d, temperature has been normal for a week

July 8th temperature has been normal since, now weighs 86 lbs

September —Physical examination shows only slight roughness on expiration

Case 2 —Sarah W , aged 25, unmarried First seen during miscarriage Under these circumstances her real name was never learned At this time she had a cough, and I advised her to try the treatment as soon as she was able

May 30th —She came to my office for her cough, she said Upon examination evidence of collapse and slight perivesicular deposit were discovered at both apices *Temperature 99 5, pulse 100*

June 6th —Considerable improvement Temperature 99, pulse 100

June 13th —Great improvement Temperature 98 4, pulse 80

On examination I found a free respiratory murmur at both apices, no roughness nor jerking

July 16th —Is now entirely recovered The treatment in this case was solution No 1

Case 3 —Miss J S , aged 25, single Present weight, 125 pounds First seen with Dr Robert H Babcock, who furnishes the following history "Patient was prostrated last May with what she supposed to be a severe bronchitis The writer (Dr Babcock) was called to see her and after repeated careful examinations of the chest and an observation lasting several weeks, came to the definite conclusion that the case was one of incipient tuberculosis of the apex of the left lung Under appropriate treatment she improved, and in June was able to be about Desirous of trying the effect of pneumatic differentiation in her case, the writer persuaded her to take a course of treatment from Dr Houghton "

Record as kept by Dr Houghton

June 4th, 1885 —First treatment, *no spray* at any time, 3 pressure, 16 respiration

June 20th —Fifth treatment, 3 inches expansion, 9 pressure, 11 respiration

June 29th —Ninth treatment, 8 pressure, 5 respiration

July 3d —Twelfth treatment, 4½ inches expansion, 8 pressure, weight 130 pounds

July 27th —Sixteenth and last treatment, 5 inches expansion, 8 pressure, weight 130 pounds

Sept 17th —She was looking very well, and voice much stronger Weight 136 pounds Went with opera troupe as chorus singer

"These treatments were continued at intervals of several weeks *The one result, established beyond doubt,* was a better expansion of the chest The anterior border of the left lung, which had been previously somewhat retracted and evinced, during percussion, but slight, if any, expansion upon forced inspiration, revealed in August last less retraction, and showed ampler excursion movement during inspiration The writer was never able to satisfy himself that the pitch of the percussion note over the affected apex became any lower, or that the respiration revealed any other change than a disappearance of the jerkiness which had first characterized it in a circumscribed area Whether the disappearance of her cough and expectoration was due to the treatments in the cabinet or to the improvement in her health from other causes, is a question Subsequently, in September, her cough and expectoration returned " [Signed] ROBERT H BABCOCK, M D

Taking all things into consideration, I am impelled to the following conclusions, *i e*, that

1 Pneumatic differentiation is of undoubted service in all conditions of primary infiltration

2 Where the febrile movement has been unchecked for many weeks before treatment, improvement, if any, will show itself within the first ten or twelve applications, if there is no abatement of symptoms *its continuance is of questionable utility,* and *it may* be absolutely contra-indicated

3 That phthisical disease at the apices is more favorably treated than when at the base of the lungs

4 That it is possible by this means to more thoroughly medicate the lungs than by any other known method

5 That the expansion of the lungs by differentiation is itself a therapeutic measure of great merit

6 That peri- and inter vesicular exudation is capable of cure by this method, and even third stage phthisis is benefited, at least temporarily

My experience is that when the febrile movement is excessive, when the evidences of septicæmia are pronounced, it is not wise to use the pneumatic cabinet certainly until these symptoms have subsided In cases of chronic bronchitis I have had so little experience that I can only say that if the proper remedy can be found its application is easy enough *Articles and authorities consulted on the subject of* pulmonary capillary circulation as affected by the respiratory movements were

John C Dalton, Human Physiology
John W Draper, Human Physiology
A L Loomis, Practical Medicine
Wm Pepper, Third Volume System of Medicine
Thomas H Huxley, Physiology
Dr Cartwright, in the *Boston Medical and Surgical Journal*, 1852
Miss E Willard, Motive Power in the Circulation
Dr Alonzo Clark, Diseases of the Heart
James R Leaming, in Birmingham's Library
M Foster, M D , Physiology
Landois & Sterling, Physiology

Central Music Hall, Chicago, October 20th, 1885

ACUTE CATARRHAL PHTHITIS, RECOVERY

BY P C JENSEN, M D ,

OF CHICAGO

On April 25, 1885, I was called to see H B , æt 14, who had been sick three weeks with catarrhal pneumonia, for which he had been treated by another physician, and a favorable prognosis had been given

The persistency and continued aggravation of the symptoms changed his diagnosis to phthisis, and he now gave an unfavorable prognosis

When I took charge of H B , I found him greatly emaciated, with large and well marked subclavicular depressions, and but little respiratory mobility He was continually getting more debilitated from loss of appetite and exhausting night sweats There was an almost continuous cough, a profuse purulent expectoration, offensive in character, containing much solid substance which would sink in water In color it ranged from grayish white to greenish brown The temperature reached 102° in the afternoon, but was subnormal in the morning The respiration was short, hurried and superficial, about twenty eight to thirty two per minute Pulse 120 to 140 per minute, volume small, and beat irregular

Physical Examination —On auscultation, bronchial râles were distinctly heard, due to exudate in the bronchial tubes There was audible a hollow or cavernous sound, as if a small cavity existed in the right lung There was decided bronchial respiration of right lung, and an almost complete absence of the normal vesicular respiratory murmur on the same side, while over the left side the lung sound was exaggerated (puerile respiration) The impulse of the heart apex could be distinctly felt on the right side, and was still more distinctly audible by the stethoscope, thus indicating a partial consolidation of lung structure on that side

The medical treatment consisted of the following combination

℞	Tr Nucis Vomicæ	gtt x
	Tr Digitalis	gtt vj
	Maltine	ʒiij
	Syrupi Hypophosph Comp	ʒj
	M	

S Take one half hour before mealtime three times daily

℞	Quiniæ Sulphatis	gr ij
	Pulv Iodoformi	gr ij
	Ferri Sub Carbonatis	gr ij
	Ext Belladonna Alc	gr 1 5
	Podophyllin	gr 1 20

M et ft Capsule No 1
Sig One capsule after each meal

As the patient was in a wasting condition, and as malassimilation and denutrition only increased the exhaustion and debility, remedies whose action promotes nutrition and tonicity were indicated To aid in this direction, one ounce of cod-liver oil was given by inunction three times a day The parts selected for the application of the oil were the axillary spaces, groins, bends at elbow joints and popliteal spaces Preceding the inunction, the parts were rendered hyperæmic by friction with mustard, which facilitates absorption To aid in checking the night sweats, and also for its soothing anodyne effect in relieving the irritability of the lungs produced by movement, a large belladonna plaster was applied over the chest Belladonna plasters act indirectly, but very efficiently, in giving relief to cough and local pain by quieting the irritability upon which the cough depends Improvement began immediately , the night sweats gradually subsided, the appetite increased, and in three days from the commencement of the iodoform treatment the sputa had lost its odor, and the quantity expectorated much diminished The cough was relieved for a while by the remedies given, but was afterwards checked by the following mixture

℞	Morphiæ Sulphatis	gr j
	Ant et Pot Tartratis	gr ij
	Ammonii Carbonatis	ʒss
	Acidi Hydrocyanici Dil	gtt xxi
	Spts Chloroformi	℥iss
	Syr Bals Tolutani q s ft	℥iv
	M	

S Take one half teaspoonful every three hours

In about three weeks from commencement of my treatment, H B was sitting up convalescent, but seemed apparently at a stand-still The respiratory murmur still partook of the bronchial character, and the temperature would not go below 99 5°, except in the morning, when it was always subnormal Thinking that if we could clean out his lungs and free them from the accumulation of pathological exudates, he would soon recover, my attention was directed to the Pneumatic Cabinet Dr Houghton thought the case one which would be benefited by the Cabinet He examined the patient in my presence, but could not then, nor could I detect any cavity at this time But Dr Houghton agreed with me in the diagnosis first stage of acute phthisis, with intervesicular deposit

The spray, which was used by inhalation in the Cabinet, consisted of one part corrosive sublimate and a small quantity of ammonium muriate to 500 parts of water The improvement in the patient from that time on was astonishing The patient states that the metallic taste peculiar to mercuric chloride spray was perceptible all day, and that the taste was distinctly imparted to the sputa This seems to me fair evidence that the spray must have penetrated the minute ramifications of the bronchioles and air vesicles This brings me up to Dr Houghton's notes (see previous article, p 509)

The anæsthetic effect of iodoform, and the peculiar symptoms of perverted sensation, muscular incoordination, diplopia, etc , are due to its action in part upon the nervous system In regard to the internal use of iodoform, I would say that I have used it considerably, both in syphilitic, scrofulous and phthisical cases, but in the last two only when purulent or putrefactive changes are going on In cases where there is much expectoration of an offensive character in various stages of decomposition, good results have been obtained by internal administration of iodoform I believe it has a restraining influence over such pathological changes as ulceration, suppuration, necræmia, necrosis, tuberculosis, and retrograde metamorphosis in general Iodoform, whenever administered internally, should be given with caution, as it is a powerful depressant to the circulatory and respiratory systems In cases in which it has been given in large single doses, and occasionally in persons where small doses have been given for a considerable length of time, bad results have been observed In the "National Dispensatory," 2d edition, page 782, we read as follows "Several cases of poisoning by this preparation have been recorded A woman affected with syphilis had taken in the course of four months about 42 grmm's (℥i ʒiij) of iodoform in pills containing each one centigramme ($\frac{1}{6}$ gr) She was suddenly attacked with faintness, vertigo, and double vision, within two days she sank into a deep sleep which lasted for thirty six hours, and was followed by excitement, violent headache, and confused speech These symptoms were succeeded by debility and a tottering gait, after which the vertigo, headache and diplopia recurred This series of symptoms lasted for a fortnight In the case of another woman, the toxical phenomena occurred at the end of the first week, and when no more than 5 grammes (75 grs) of iodoform had been taken She slept continuously for five days, after which debility and vertigo were experienced for several weeks (Oberlander) "

In my own experience, I have observed no such phenomena from the use of iodoform internally But in every case in which I have employed it as an internal remedy, the combination with nux vomica, digitalis, and ext belladonna overcomes or prevents its depressing influence upon the circulation and respiration, and as these remedies are cardiac and respiratory tonics, I think it a most rational method of obviating the dangerous effects sometimes resulting from the internal use of iodoform

Chicago Opera House Building

FRACTURE OF THE RIB CAUSED BY SNEEZING

BY HAL C WYMAN, M D

SURGEON TO THE WEST END DISPENSARY DETROIT, MICH

There is a Hebrew legend which says that before the days of Jacob no man sneezed more than once—the effort cost him his life Jacob invoked the blessing of God and survived an attack, and since his time it has been customary for persons, in the presence of one sneezing, to utter a "Praise God!" "Gesundheit!" or other significant exclamation, lest the phenomenon result fatally That sneezing may not, in all cases, be the harmless action it is commonly believed to be, the following case will serve to illustrate

Mr M, aged 72 years, remarkably vigorous and healthy for his years, summoned me hastily for relief of severe pain in his right side, which had commenced suddenly after sneezing with unusual force I found him standing, supported by a chair, his face pale, his breathing difficult and provoking cries, with pain in the lower part of the right side I suspected pleuritis and neuralgia, and was surprised on placing my ear on his chest to hear distinctly the crepitus peculiar to fracture of bone Further examination showed a fracture of the eighth rib, near its angle The treatment consisted in placing three strips, fourteen inches in length, of Seabury & Johnson's rubber adhesive plaster obliquely over the right side, crossing the ribs at right angles The plasters were adjusted with sufficient firmness to draw the ribs snugly together, and to limit the motion of the fractured one Recovery was prompt and without complication

This case is of interest, because it was unquestionably caused by sneezing, and the fact that sneezing is not usually referred to as a cause of fracture of the ribs A glance at the mechanics of sneezing will show that two powerful sets of muscles may be brought into antagonism in a way to expend their opposed forces upon the ribs, making the fracture simply a mechanical matter

The treatment by means of plasters having some permanency of adhesive power has proven in many cases of fractured ribs, as it did in this one, a great advantage over the old method of a broad bandage encircling the chest It permits freedom of motion on the uninjured side of the chest, while it insures sufficient immobilization of the fractured bone to control pain and favor union

It is said that insane persons are particularly prone to fracture of the ribs, and that sneezing among them is not infrequently the cause Whether there is, in these cases, a dominant frailty of rib structure, or an unusual quantity of muscular force called out by the mental unsoundness and applied to the ribs in the act of sneezing, is an interesting point to determine

OPERATION FOR MALFORMED AURICLE[1]

BY S S BISHOP, M D,

SURGEON TO THE ILLINOIS CHARITABLE EYE AND EAR INFIRMARY
AND SOUTH SIDE FREE DISPENSARY

On July 11th, 1885, Nettie H, eight years old, presented herself at my clinic at the Infirmary and said she "wanted her ears put back" Both auricles were so abnormally prominent as to mar materially the symmetry of a very shapely face and head The left auricle, which was the more unsightly, projected one and one fourth inches at a right angle from the junction of the auricle with the mastoid process, and then bent forwards, thus forming what is facetiously termed "lop-ear," or "dog-ear" The natural elevations and depressions were obliterated, and the organ presented the appearance of having been flattened by the pressure of the head in sleep on an auricle folded forward upon itself The right ear projected one inch, but was not as imperfectly shaped as the left one At first I contemplated moulding the auricle into shape in a dressing of plaster of Paris, which would retain the parts in position for several months, with proper care and renewed dressings But on account of the youthfulness of the child, which would render it highly improbable that she would cooperate in that treatment with sufficient persistence to insure success, I performed an operation, with the consent of her parents, and with the assistance of Drs Hawley, Abbott and Walker

On July 17th the little patient was anæsthetized with ether An incision one and three-fourths inches long was made on the posterior surface of the auricle about one-half inch from the free border of the cartilage, and parallel therewith Another curvilinear incision internal to the first was made, to unite its extremities These incisions extended only through the skin and subcutaneous tissue, and were made to embrace about one half inch of integument at the widest divergence of the lines of incision After dissecting off this skin and subcutaneous tissue, two incisions parallel to the first were made through the cartilage, and an elliptical section of this was dissected off from the skin covering the anterior aspect of the auricle, without wounding that integument The portion of cartilage removed was not quite as wide or long as the section of skin taken from the posterior surface of the auricle The edges of the wound were united by three sutures, which included the skin only, and the parts were dressed with absorbent cotton and net bandage

---

[1] Read before the Chicago Society of Ophthalmology and Otology, August 11, 1885

Union by first intention occurred and the sutures were removed the fifth day However, the patient chose a pleasure excursion in preference to the clinics before the wound had healed thoroughly, the dressing became displaced and the wound was torn open along the centre Consequently this portion of the wound healed later by granulation There was but slight pain or swelling, and the child evinced no dread of an operation on the other ear except with respect to the ether

The result of the operation is that the auricle now projects but three-fourths of an inch instead of one and one-fourth inches, making a difference of one-half inch between the projection before and after the operation Besides this, the natural elevations and depressions which are requisite to the beauty of a well formed ear have been restored

I do not know that any surgeon has previously performed an operation identical with the one I have devised, but when a learned professor informs the French Academy of Sciences that before the illustrious Jenner was born, and "from a period so remote that it loses itself in the night of time," the inhabitants of Senegambia have practiced inoculation for the prevention of a contagious disease, I have not the temerity to call any operation new A short time since I thought I had originated another new method of treatment, when to my surprise I learned that Dr Sexton, of New York, had been experimenting in the same direction, although he had not published the fact Drs Ely and Roosa have operated in a different manner to effect a similar result They transfixed the auricle at its junction with the side of the head, and removed the cartilage and the skin covering both the anterior and posterior surfaces

By the operation which I performed it is apparent that the integument covering the anterior surface of the auricle, or the part most exposed to view, was not at all injured I was not able to ascertain the exact results in Dr Ely's case In Dr Roosa's case the projection before the operation was the same as in mine, but the projection in my case after the operation was one eighth of an inch less than in his

---

REMOVAL OF THE ENTIRE TIBIA

BY B F HART, M D ,

OF MARIETTA O

In December, 1883, I was called to see a boy, aged 13 years, who had been treated three weeks for rheumatism On examination, I found the leg much swollen, very hot and painful, with marked fluctuation the result of extensive periostitis The boy was very anæmic, and much exhausted

I opened the leg at its upper third, and anterior aspect, and discharged over a quart of pus and broken down tissue A rubber band was applied, and a restorative course of treatment was given for four weeks, until the system could be restored sufficiently to permit the removal of the diseased bone On January 30th, 1884, with the patient under influence of chloroform, I began an incision close to the knee, and finding no sound bone, continued the same to the ankle, and by the use of the enucleator, separated the tibia from its epiphysis

The upper end having been loosened by disease, the entire bone was easily removed With the raspatory I scraped the tibial side of the epiphysis at the knee After dressing the wound with oakum for ten days, it was gradually drawn together by means of adhesive straps In ten weeks the new bone had so far re formed that he could bear his weight upon the limb About four months elapsed before he was able to walk without the aid of crutches At this date (October, 1885) recovery is perfect, tibia full size, and there is no halting in his walk

---

MEDICAL PROGRESS

ANATOMY AND PHYSIOLOGY

WHAT BECOMES OF THE BILE IN THE ALIMENTARY CANAL —Schiff admitted in 1870 that there was a circulation of the bile from the liver to the intestinal canal, and *vice versa*, as it seemed to him that the quantity of bile was always increased when bile was introduced into the canal Sokoloff denied both the fact and the theory, for after injecting glychocolate of soda into the intestine of a dog, he could find none in the bile

A WEISS has recently repeated these experiments, and the results are published in the *Bulletin de la Societe Imperiale des Naturalistes de Moscou*, 1884. He made injections of glychocolate of soda into the intestinal canal of a dog for three days, killed the animal, and examined the contents of the gall-bladder for the glycocholate of soda His results were contrary to those of Sokoloff The presence of glychocolate of soda was established by the reaction with neutral acetate of lead, and by Hoppe's quantitative method, by which the quantity of cholalic acid and sulphur are determined From the quantity of sulphur the taurine is found, and consequently the taurocholic acid Weiss found a surplus of cholalic acid, which could only have come from the glychocolic acid introduced in the experiment, and which had passed into the bile Had glychocolle been introduced instead of the glychocholate, the result would have been different the bile would have contained taurocholates only If cholalate of soda be introduced, it passes into the bile in small quantities, and glychocolic acid is found, by giving the cholalate only a small quantity is found In the first case it is combined with the glycocoll, in the second glycocholates appear, cholalic acid, which is not found in the natural state, being really combined with taurine and glycocoll in its passage through the liver. Finally, by giving a mixture of taurine and cholalate of soda he found 2 per cent. of glycocholate in the bile, which result supports the preceding theories.

Weiss then reviews Schiff's theory, as to whether fresh and decomposed bile (decomposed in the intestine) circulate continually from the intestine to the liver. The bile is partially decomposed in the intestine, and reconstituted (reorganized) again in the blood and liver, by the union of the taurine and glycocol with cholalic acid. He has found that the introduction of cholalic acid into the stomach increases the quantity of the coloring matters of the bile, while glycholic acid has no such effect.

MATERIA MEDICA AND THERAPEUTICS

HYDRONAPHTHOL, A NEW ANTISEPTIC.—In an article on the antiseptic properties of this new substance, DR. GEORGE R. FOWLER, of New York, gives the following history.

Hydronaphthol belongs to the phenol series, and bears the same relation to naphthyl, the hypothetical compound radical of naphthalin, that carbolic acid does to the compound radical phenyl. Thus, carbolic acid was formerly regarded as the hydrated oxide of phenyl. Hydronaphthol, considered in the same way, would be a hydrated oxide of naphthyl. At the present time, however, these hypothetical compounds, phenyl and naphthyl, are considered as obsolete, and not capable of existing. In fact, carbolic acid is regarded as an oxide of benzol, or as a benzol in which one of the hydrogens is substituted by one hydroxyl (O H). Naphthol is obtained from the sodium naphtholate by decomposing it with hydrochloric or sulphuric acid; it is then purified by distillation.

Hydronaphthol is a derivative of the hydroxyl substitute of naphthalin, which latter of itself possesses antiseptic properties of sufficient value to have already excited notice and a desire to learn more of its compounds. The term "hydronaphthol," though perhaps not, strictly speaking, correct yet conveys sufficiently well its character and relations to naphthalin, and at the same time is a convenient term for every day use. It has been but recently discovered that it possesses antiseptic properties, and the claim is made that it is from ten to fifteen times more efficacious than carbolic acid. It is the most promising antiseptic of the phenol series, and, besides, possesses so many other advantages over substances now used for this purpose that it bids fair to supersede many of these. In surgical practice it will take the place probably, of carbolic acid. Of the many new members of the phenol series which have been discovered since Calvert called attention to carbolic acid about thirty years ago, and which have been utilized in the industrial arts, some are better antiseptics than the latter. With but one or two exceptions, however, none have obtained any prominence as germicidal agents. Carbolic acid, though a fairly reliable antiseptic in strong solutions, when so used, involves some risk to life, from its corrosive action upon animal tissues and well-known poisonous properties. In weak solutions it is exceedingly unreliable, and its disagreeable odor often hides that of putrefaction, instead of preventing the occurrence of the latter. On the other hand, hydronaphthol is non-irritant, non-poisonous, and non-corrosive, and, although only soluble in water to the extent of one part in one thousand, in this proportion is antiseptic. It has no odor to disguise that of putrefaction, nor is it decomposed or rendered inert by the products of putrefactive decomposition—such as sulphureted hydrogen, ammonia, etc. It is far more stable than carbolic acid, not being volatile at ordinary temperature. Its vapor, when volatilized for purposes of fumigation, has no obnoxious effect upon the organs of respiration. It will not injure, either in substance, solution, or vapor, colors or textile fabrics. Its sparing solubility in water is rather an advantage than otherwise, as mistakes in making solutions can not occur. A saturated solution is about of the strength of one to one thousand, and in this proportion it will perfectly preserve for an indefinite time animal tissues and fluids, and yet upon living tissues this solution produces no perceptible effect other than the formation of a very slight albuminate film—this latter to be considered rather an advantage than otherwise, inasmuch as it constitutes an additional security against infectious germs floating in the air. If for no other reason than that it is non-corrosive, and hence will not injure the polished surface and keen edge of cutting instruments, it is to be preferred to mercuric bichloride, and to the latter it is second only in antiseptic qualities. It has a slight aromatic taste and odor, and crystallizes in scale-like clinorhomboid laminæ of a silvery white or grayish hue. Although but sparingly soluble in water, it dissolves freely in alcohol, ether, chloroform, glycerine, benzole, and the fixed oils. It is not volatile at ordinary temperature, but begins to sublime at about 90° C. With the alkalies and the alkaline earths it forms compounds which are unstable, are readily decomposed by carbonic acid, and of doubtful antiseptic value. It is easily powdered, and in this condition, triturated with carbonate of magnesia, silicates, such as fuller's earth, China clay, etc., in the proportion of two parts of the hydronaphthol to one hundred of either of the above named, can be dusted along the line of incision and over the mouths of drainage-tubes, in the latter application having an advantage over iodoform, now so commonly used for that purpose, in that it does not dry up the serum escaping from the wound cavity and thus block up the exit extremity of the tube. Absorbent gauze, cotton, jute, wood flour, sawdust, peat, moss, and paper-wool may be impregnated with it by immersing them in its alcoholic or benzole solution and then drying, the hydronaphthol crystals cling to these without the aid of stearin, paraffin, or resin, as in the case of carbolic acid. As it is not decomposed by the presence of organic matter, it possesses this advantage over corrosive sublimate in the preparation of surgical dressings. Its ten per cent. alcoholic solution perfectly sterilizes silk, and sufficiently hardens and preserves, as well as sterilizes, catgut.—*New York Medical Journal*, October 3, 1885.

MEDICINE

Periostitis of the Spine, with Tetanic Spasms —Dr Wm Budd, of Exeter, reports the following case R M , a gentleman of active habits, had been affected for the last nine months with symptoms of periostitis The spine and the bones of the pelvis were the parts chiefly affected When he consulted me, there was much tenderness on the spinous processes of the third and fourth dorsal vertebræ and also on the sternum He had also suffered from severe pains in his limbs and trunk generally, which the least motion aggravated, coughing, sneezing, or laughing produced agonies of pain in the back and ribs The pains were greater at night A few days before applying to me, a new symptom came on He became affected with sudden attacks of tetanic spasms, which fixed his limbs and extended his trunk, throwing his head back It was a sudden shock, which relaxed again instantly He found that the best way to avoid their recurrence was to lie on his back, and remain perfectly still On inquiring into his past history, he told me he had had a sore on his penis seven years previously, accompanied by bubo, which was followed by nodes on the shin bone He experienced salivation from the treatment received at that time Feeling sure that his symptoms were a manifestation of the syphilitic virus, I ordered him a mixture containing five grains of iodide of potassium, and five grains of Plummer's pill every night at bedtime After taking these for a fortnight, he was greatly relieved in all his symptoms The tetanic spasms had not returned since taking the medicine A fortnight later he was entirely relieved from his symptoms, and had gained strength and flesh The next time I saw him, he expressed himself as perfectly cured —*British Med Journ* , Sept 26, 1885

SURGERY

Gangrene of the Lung —In a paper on the subject, read at the recent annual meeting of the British Medical Association, Dr Sidney Coupland says Examining the *post mortem* records of the Middlesex Hospital for the ten years 1875-85 (*vide* Table), I find thirty-eight cases of pulmonary gangrene which passed on to the stage of excavation, in cases where a more or less extensive sloughing of lung tissue had taken place, with the formation of one or more cavities I have excluded lobular suppuration and bronchiectasis from the category, except where the latter has led to a gangrenous condition Of these thirty-eight cases

14	were	associated with	acute croupous pneumonia
6	“	“	chronic pneumonia
2	“	“	bronchiectasis and chronic pleurisy
3	“	“	pulmonary embolism
1	“	“	pulmonary thrombosis [1]
4	“	“	cancer of the tongue
3	“	“	cancer of the œsophagus
2	“	“	cancer at the root of the lung
1	“	“	thoracic aneurism
1	“		cerebral hemiplegia
1	“	“	suppurating bronchial glands and tuberculosis

The relationship between gangrene of the lung and acute lobar pneumonia has hardly as yet received satisfactory explanation Laennec considered that the surrounding inflammatory change was purely secondary, and there is no doubt much truth in this view as regards many cases But there yet remain a fair proportion where there seems no room for questioning the fact that acute pneumonia has terminated in gangrene Of the fourteen cases mentioned as associated with acute pneumonia, not more than eight could fairly be considered as directly dependent on the latter In the rest, the limitation of the pneumonic areas, distribution of the gangrenous foci, point to the hepatisation being secondary to the gangrene At the same time, no adequate cause for the occurrence of the gangrene can be assigned

That some cases of pneumonia occurring in debilitated subjects, or in those who are the victims of depraved nutrition, may eventuate in gangrene, cannot be denied Thus, in six of these cases, there was an admitted history of alcoholic excess, three cases were complicated with granular kidney, and one occurred in a diabetic, but what is the precise determining factor of the gangrenous process in these cases, I am unable to say One can, of course, assume that, in all these subjects, as in those where no underlying cachexia is present, there may be such an extension of the inflammatory process as to involve the nutrient vessels of the organ, presumably the bronchial arteries, but we have no actual demonstrations of this fact, and I cannot help suspecting that in most if not all such cases, there has been admitted into the lung some special irritant or septic material which has initiated the virulent type of gangrenous inflammation The rarity with which gangrene occurs as a sequel of acute pneumonia, is well illustrated by the returns furnished last year to the Collective Investigation Committee of this Association Out of the 1,065 cases so returned, gangrene resulted in only two, both being old subjects, and one a drunkard In a certain number of cases, however, the connection between pneumonia and gangrene is more evident I refer to those cases of lobar inflammation which, instead of resolving, pass into a condition of induration, where the pulmonary tissue becomes converted into a dense more or less vascularized tissue, or portions and tracts of the inflamed lobe may remain so consolidated

He gives a table of twenty cases of gangrene of the lung associated with pneumonia The seat of the gangrenous cavity or cavities was in the right upper lobe in no fewer than eleven cases, and there was no single instance of the left upper lobe being implicated In three cases, the gangrene was in the right lower lobe In two cases, gangrenous foci were found in both lungs, namely, in the right lower lobe and left upper lobe in one, and in the converse lobes in the other

The condition of the overlying pleura is important, especially in view of the practicability of puncture in such cases The pleural sac was obliterated by firm adhesions over the affected lobe in six of the cases associated with acute pneumonia, and in all those in which the pneumonia had become chronic But in one of the latter, the line of adhesion was not completely conterminous with the limits of the gangrenous cavity, and the puncture which was made in this case resulted in a pyo pneumothorax In four of the acute cases, there was more or less abundant lymph in the pleura covering the affected lobe, and in two there was empyema, apart from any perforation of the pleura Lastly, in two cases there was very slight, or hardly any, concomitant pleurisy

---

[1] Pulmonary thrombosis occurred in other cases but in only one could it be considered as in any way causally related to the gangrene In most cases the thrombosis was clearly secondary

In another class of cases, gangrene of the lung can be traced more clearly to blocking of the pulmonary vessels, but it is noteworthy that such local arrest of the circulation does not necessarily lead to gangrene, although it may often be productive of that form of necrosis known as the hæmorrhage infarction These infarcts, common in cardiac disease, do not, as a rule, break down by gangrenous softening, in spite of the access of air to their vicinity The ultimate issue of pulmonary infarcts is mostly caseation and shrinking of the necrosed part

When we have excluded from the list all those cases of pulmonary gangrene which may fairly be attributed to antecedent pneumonia, to thrombosis or septic embolism, we have by no means exhausted the whole etiological category, for, although we are practically reduced to cases where putrescent material gains direct entrance into the lung by inhalation, we find that this may be brought about under a great variety of circumstances Indeed, I am not sure but that a closer scrutiny of many a case of so called pneumonic gangrene may show it to be owing to the entrance into the lung by inhalation of putrefactive germs, and that, as I have before stated, there may be more truth than we are inclined to admit in Laennec's original view of the relation between the gangrenous focus and the concomitant pneumonia[1]

The putrefactive materials so inhaled may be found in (1) retained bronchial secretion, (2) morbid extrapulmonary products, and (3) foreign matter introduced from without

After giving a history of the surgical treatment of pulmonary gangrene, he says That pulmonary cavities may be laid open and drained, without, in many cases, incurring much risk, has been amply demonstrated of late years Most of the operations have been of a palliative rather than a curative character, dealing with basic bronchiectatic cavities or phthisical vomicæ Of such, I do not desire now to speak The operation of tapping a chronic pulmonary cavity is simplified by the almost invariable circumstance of a thickened and adherent pleura, and if the physician can be sure of his diagnosis of the presence of a cavity, the surgeon has few difficulties to encounter in reaching it It is, however, in cases of pulmonary gangrene that we should look for more permanent and satisfactory results of such operative interference were it not that it is precisely in these cases that most difficulties are present It is impossible to determine by the prevailing methods of physical examination the extent or depth of a gangrenous focus, or even whether it has reached the stage of excavation, that is of demarcation and detachment of the slough, or to be certain that one is dealing with a small circumscribed area of gangrene rather than a diffuse necrosis, limited only by the natural boundaries of the implicated lobe Nor can we determine the very important question of the presence or absence of pleural adhesions The case with which this paper opened bears out these discouraging reflections In another case (No 20) the diagnosis of the seat of a circumscribed gangrenous cavity was correct, but the introduction of the trocar was followed by pneumothorax After death it was found that the artificial opening had been made into the lung just along the line where the pleural layers ceased to be adherent Had the opening been half an inch higher, it would have escaped the pleural sac The absence of adhesions is, *cæteris paribus*, more probable in the case of acute than in that of chronic gangrene, but the risk of inducing pyopneumothorax must be balanced against the almost inevitably fatal issue of the case if not treated surgically Should the pleura be opened, the case would have to be dealt with as one of fœtid empyema, and measures be taken to drain the pleural sac At the same time, in acute cases one would be guided rather by the general condition of the patient, before advising operation, knowing that recovery under expectant treatment sometimes occurs When gangrene of the lung complicates malignant disease, or thoracic aneurism, it is futile to think of surgical measures But in chronic cases, not so complicated, not only are pleural adhesions probably present, but the sloughing mass is likely to be circumscribed It is in such cases, and especially in those where the gangrenous process has been set up by the presence of a foreign body in the bronchus, that one may look for the most satisfactory results, when indeed, a recourse to surgical interference appears to be not only justified, but to be the only rational line of treatment At present the subject is too novel to allow any definite rules to be formulated, but enough facts have already been gathered to point to a line of successful treatment of one of the most distressing, and, hitherto, one of the most hopeless of diseases —*British Medical Journal*, September 5, 1885

HYPODERMIC INJECTION OF PILES—DR J W GIRARD, of Winchester, Tennessee, says "If my experience with the use of the hypodermic syringe in hæmorrhoids be worth anything to the profession, I give it cheerfully I have used it for about ten years, and have treated, I think, about 200 cases without a single failure, and in no case has the tumor returned thus far My course of treatment is generally to take one part of tannic acid, two parts of carbolic acid, four parts of alcohol, and eight parts glycerine I inject each pile separately, and, in a few days, they slough away, and generally heal kindly under dressings of carbolated cerate If there be much constitutional disturbance, I generally control it with a steam bath or a hot sitz-bath "—*British Medical Journal* Sept 5, 1885

---

[1] At the present time when evidence is accumulating in favor of acute lobar pneumonia being due to the presence of a specific microbe (Friedländer's Pneumococcus) there is less ground for opposing the doctrine above stated Nevertheless I should not be prepared to admit that every case of pulmonary gangrene can be explained in this way

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

The Editor of this Journal would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

Subscription Price Including Postage

Per Annum in Advance	$5 00
Single Copies	10 cents

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in registered letters

Address
Journal of the American Medical Association,
No 65 Randolph Street
Chicago Illinois

SATURDAY NOVEMBER 7, 1885

PNEUMATIC DIFFERENTIATION

The article by Dr Houghton, which appears in this issue of the Journal, is the fourth and last contribution upon the merits of the Cabinet known by the rather cumbrous name of "Pneumatic Differentiator" Dr Herbert F Williams, of Brooklyn, brought it to the notice of the profession at large by a report in the *New York Medical Record*, Jan 17, 1885, of its trial in sixty-four cases of various pulmonary complaints He subsequently discussed its action and limitations before the Climatological Society at its meeting in New York last Spring A report of his paper, together with remarks upon it by Drs Armour and Loomis, may be seen in the *New York Medical Journal* of Oct 3, 1885 In the columns of the Journal of Aug 1, 1885, is an article by Dr Vincent Bowditch, of Boston, wherein he reviews the subject of pneumatic therapeutics and cabinets and the Differentiator greatly to the advantage of the latter Dr Houghton's paper and an editorial comment in the Journal of Feb 14, current year, complete, we believe, the literature upon this subject up to the present time

The Cabinet possesses decided merits as will be seen by the perusal of Dr William's reports In our comments last February we took the view that it is practically the same in its effects as the administration of compressed air, and from further reflection, as well as personal investigation of the cabinet, we see no reason to change our opinion However, there is one respect in which the "Differentiator" is certainly superior to all portable air condensing machines This is the facility and thoroughness with which medicaments can be carried into the lungs Were this the sole merit of the Cabinet, it would be of value, but since it promotes a better expansion of the chest in individuals of the superficial respiration, it thus constitutes a powerful means for the prophylaxis of tuberculosis Yet this is not all, as shown by the report of cases by Drs Williams and Houghton, the use of the Cabinet confers permanent benefit in non tubercular catarrhal conditions of the bronchial mucous membranes, as well as in atelectasis and compression of the lungs In pulmonary tuberculosis improvement generally results, while in a few cases, as reported by Dr Williams, there seems reason to believe that the process has been arrested It is thus seen that the Differentiator accomplishes all that has ever been claimed for compressed air Indeed it is not unreasonable to predict that, owing to its superiority in the thoroughness with which atomized solutions may be carried into the lungs, even more brilliant achievements may characterize its employment As in the inhalation of compressed air, not the least important of its benefits is its ability to check hæmoptysis, and herein, as well as in all other respects, the similarity of its action to that of compressed air is presumptive evidence that Pneumatic Differentiation is but a method of administering air under increased pressure, and a few moments' reflection will suffice to convince any one that such is the case We may therefore with propriety apply to Pneumatic Differentiation Waldenburg's explanation of the effects of his apparatus

He describes the effect of respiration upon the heart and arterial system as follows In consequence of negative pressure within the lungs, the primary effect of inspiration is an aspirating one upon the veins of the body Their contents are emptied into the right side of the heart, and this organ contracting with diminished vigor, throws but a small amount of blood into the aorta, and blood pressure within that vessel sinks As soon, however, as atmospheric pressure in and out of the lungs becomes equal, all suction force upon the veins ceases, until at the close of inspiration and during expiration, positive pressure is exerted upon the heart and aorta The ventricles contract energetically, but receiving less blood they force less into the great vessels Hence, during expiratory effort arterial tension is increased When compressed air is inspired, its inrush is so sudden that an aspirating effect upon the veins is not exerted, the lungs quickly become distended, the veins of the neck grow turgid, and owing to the pressure exerted upon the heart and great vessels, arterial tension is increased, the same as in expiration As this pressure persists during the ensuing expiratory effort, the effect of compressed air is the same as, and prolongs that of expiration.

In consequence of the alveolar distension, caused by the inspiration of condensed air, the pulmonary capillaries are subjected to a degree of pressure which partially exsanguinates them. This anæmia of the lungs, which, according to Jaccoud, is likewise produced through the rarefied atmosphere of high elevations, directly favors the arrest of pulmonary hæmorrhage and engorgement, precisely the effect claimed by Drs. Williams and Houghton for their system of pneumatic therapeutics. But the beneficial influence of such a treatment is not merely local, there are constitutional effects which can be understood only by a knowledge of certain changes that take place in the arterial system. What Sommerbrodt says with reference to this, seems to us particularly satisfactory. An increase of the intra-bronchial pressure, according to that observer, whether from coughing, loud talking, laughing, and the like, the Valsalvan method, or the inhalation of compressed air, stimulates the sensory nerves of the lungs, hence ensue, by a secondary reflex action, stimulation of the vaso-dilator nerves, lowering of arterial *tonus*, increase of the pulse rate and fall of blood pressure. At the same time also results a reflex lessening of the inhibitory influence of the vagus, the circulation is quickened and the secretion of urine is augmented. The teleological significance of all this is, that an increase of oxygen and nutrient material is supplied to the muscles concerned, and probably to the brain and nerve centres. In this reflex effect upon the systemic circulation to which much of the constitutional benefit of ærotherapeutics must be ascribed lurks a danger which must not be overlooked. If the arterial coats be atheromatous, the dilatation of the vessels, which is meant to counteract the increased blood pressure, cannot take place sufficiently. Not only might rupture of an artery occur, but the strain thus imposed upon a weak heart might occasion its sudden failure. Owing to this and other dangers liable to follow its employment in the hands of ignorant or careless men, the Cabinet under discussion should be kept out of reach of charlatans, and we are glad to learn that measures to this end are adopted by the company controlling its manufacture. Only regular and reputable physicians are to be entrusted with the use of the Cabinet, at a yearly rental of $250, as the machines will not be sold. We should be pleased to see Pneumatic Differentiation become widely adopted for the treatment of pulmonary diseases, but fear the rental required for the apparatus will militate against its acquisition in more than exceptional instances. We understand that five Cabinets are already in use in Brooklyn, three in New York, one in Boston, one in Albany and one in Cincinnati. The recent improvements in its construction have made it easy of manipulation and efficient. We commend Dr. Houghton's Cabinet to the unprejudiced inspection of our readers who reside within easy access.

"A NEW AND RELIABLE SIGN OF PREGNANCY."

Contributions to our knowledge of the signs of pregnancy, especially those developed during the early months, are of peculiar interest and importance. Dr. Reinl, of Franzensbad, called attention in the *Prager medicinische Wochenschrift*, 1884, No. 26, to a new and reliable sign of pregnancy, observed and described by Professor Hegar. Dr. P. Compes, assistant physician in the Freiburg obstetrical and gynecological clinic, in a recent communication to the *Berliner klinische Wochenschrift*, 1885, No. 38, confirms the observations of Professor Hegar and Dr. Reinl.

This sign consists in softening and compressibility of the lower uterine segment, in marked contrast with the firmer and thicker tissues of the cervix. The softening and compressibility of the lower uterine segment are more pronounced in the median section than towards the borders. In order to elicit this sign at the earliest possible period, Dr. Compes recommends the combination of the rectal touch with abdominal palpation in the following manner:

The index finger of the left or right hand is introduced into the rectum, after the thumb is inserted into the vagina and placed upon the vaginal portion. The index finger, pursuing a backward direction, seeks to penetrate the aperture of the *sphincter ani tertius*, to do this, the sacro-uterine ligaments, marking the boundary between lower uterine segment and cervix, must be passed. When it is not easy to execute this manœuvre, as not infrequently is the case, since the aperture of the *sphincter ani tertius* may be concealed, placed to the right or left, or very narrow and situated posteriorly, one-quarter litre of lukewarm water may be allowed to run into the rectum. It will be an easy matter, now, to find the aperture. Then let the hand lying upon the abdomen, above the symphysis, press downwards and backwards in the direction of the index finger, moving in the rectum upwards and forwards. The index finger examines first the cervix and then the lower uterine segment. The manipulation may be rendered still easier by grasping the vaginal portion with a double tenaculum. It is not necessary to anæsthetize the patient.

The presence of this sign has been demonstrated as early as the end of the seventh week Its diagnostic value is not definitely settled Dr Compes thinks it is a positive indication of pregnancy, since he has not observed its presence in a great variety of pathological conditions of the uterus, nor in the puerperal uterus However, changes similar in kind, less in degree, have been noticed in isolated cases of retroversion of the uterus Then the softening and compressibility of the lower uterine segment is not observed in every case of pregnancy Further investigation is necessary to determine the exact significance of these changes

Their origin is clearly explained by Bandl's researches into the anatomical boundaries of the *cervix uteri* • Bandl (*Archiv fur Gynakologie, Band XV, Heft 2*), is convinced that the lower uterine segment is the *collum uteri* The supravaginal portion of the cervix is much thinner than the *corpus uteri* The changes in firmness and compressibility in the lower segment as observed by Hegar, Reinl and Compes, are due to the alterations about the internal os, when the cervical canal is beginning to be drawn up into the uterine cavity

Dr Rasch (*British Medical Journal, Vol ii, 1873*) describes a sign of pregnancy,—the detection of fluctuation through the anterior uterine wall, depending upon the presence of liquor amnii,—which is not identical with the phenomena noticed by Hegar Uterine fluctuation may be detected as early as the end of the eighth week

PROFESSOR MATTHEW HAY

We learn that PROFESSOR MATTHEW HAY, of Edinburgh, has been elected Professor of Pharmacology in the Medical Department of Johns Hopkins University Though we have no intimation that he has accepted, or that he will accept, we are sure that those who desire to see a higher medical education in this country, and especially those who can appreciate the benefits of a correct and thorough teaching of Pharmacology, sincerely hope that Prof Hay will consent to come to America, to teach in what promises to be one of the most thorough medical schools in the world

Professor Hay is yet a young man, but he has earned, by hard and thorough work, a very enviable reputation as a pharmacologist and teacher We can but think that his coming to America would be greatly to his advantage The field for pharmacological work in this country is vast, and his acceptance of the position offered him would in all probability awaken an interest in the subject, that has thus far been unfortunately almost foreign to America His work has been no small factor in creating the demand for better pharmacological work in Great Britain, a demand that has recently been manifested by the establishment of a Section of Pharmacology in the British Medical Association Much as has been and will be said against "Specialism," it must be admitted that this important branch—or study must be taught by a "Specialist" Good work in pharmacology must be done by one who has a special training and a special aptitude for the work, and further, he must be a chemist and appreciate the value of physiological pathology More attention to pharmacology, therefore, means more attention to and better work in medical and physiological chemistry and physiological pathology It may be said that America offers better advantages now to the pharmacologist and physiologist than does England, since the anti-vivisection element here is not so strong—nor is it likely to become so powerful and rabid The most that that element can hope for in this country is a restrictive law which will be entirely satisfactory to the physiologists, and to which they will give their full consent

SMALL POX AND VACCINATION

Perhaps nothing has occurred in recent times, better calculated to impress the minds of both the profession and the people with the inestimable value of vaccination as a reliable preventive of small-pox, than the unusual prevalence of the latter disease in the city of Montreal Having a considerable percentage of her population not only unvaccinated, but by prejudice and want of knowledge stubbornly opposed to being vaccinated, the result has been that the small-pox, once introduced among them, has already destroyed several hundred lives, interfered with business to the extent of millions of dollars, and is said to have added at least half a million to the city's debt And yet these are only a part of the evils produced, for the protracted and extensive ravages of the disease in that city has endangered the carrying of the contagion in persons and clothing into all other parts of Canada, and into all the States adjacent thereto Indeed, it has been carried into, and manifested the disease, in several places within our States already, and had the people generally been as negligent of, or as prejudiced against, the practice of vaccination, as a part of the citizens of Montreal, the small-pox would now be prevailing in all its loathsome destructiveness in a dozen States of our Union But by the vigilance of the State and Local Boards of Health in New England, New York, Michigan, Wisconsin and other States, the disease has thus far been restricted to the parties bringing it within our borders, and there is a strong probability that it will remain thus restricted Yet it is the duty of every citizen to see that not only himself, but his family and his employes are as well protected as vaccination can make them

SOCIETY PROCEEDINGS

OBSTETRICAL SOCIETY OF PHILADELPHIA

Stated Meeting, Thursday, October 1st, 1885

The President, B F Baer, M D, in the Chair

Dr Wharton Sinkler read a paper on

THE DIFFERENT FORMS OF PARALYSIS MET WITH IN YOUNG CHILDREN

The most frequently met form is infantile spinal paralysis, or *polio-myelitis anterior* This term indicates the pathology of the disease, which is an inflammation of the nerve cells of the anterior horns of white matter of the spinal cord This affection may come on at any period of life, but is generally seen in children and usually at the age of two years

The children are generally strong and apparently healthy, and the paralysis is sudden in its onset Fully two-thirds of the cases I have seen have been attacked in the summer months, hot weather and teething seeming to be predisposing agents Dr Barton, of Manchester, England, reports that of fifty-three cases in which he noted the time of onset, twenty-seven occurred in July and August The attack is preceded by fever of greater or less intensity, with pain in the head and limbs, with general soreness when moved or lifted After a few days, paralysis more or less complete occurs, but in a few days a regression of the paralysis from some of the affected parts occurs Sensation is undisturbed Atrophy of the muscles is soon apparent, in fact, the paralyzed portion stops growing for a time The temperature of the affected portion is low and the skin is blue and mottled, but there is no tendency to ulceration, and wounds or scratches heal readily The skin and tendon reflexes are lowered or abolished in the affected limbs At first response to the farradic current produces but little muscular contraction, except when a powerful current is used When atrophy has set in the reaction of degeneration is seen Most cases of club foot are the result of infantile palsy Deformities of the upper extremities are rare, this disease differing in this respect from cerebral palsies The exact causes of infantile palsy are unknown Over fatigue often precedes an attack, sudden chilling is considered by Seguin to be a frequent cause

The *prognosis* as to perfect recovery is only moderately good In many cases the most faithful treatment fails to restore the paralyzed muscles, but in almost every case we can expect more or less improvement

In the early stages of the paralysis, after the subsidence of the fever, the treatment should consist of mild stimulation to the spine, ergot, and small doses of bromide of potassium should be given internally Later in the disease, iodide of potassium should be given instead of the bromide When the palsy is established, electricity and massage are the means to be depended upon They must be persisted in for months or even for years Internal treatment is of little or no value unless there is some failure in the general health of the child

Spasmodic paralysis as seen in children is of two varieties When of primary spinal origin, or when there is a descending degeneration of the cord from a primary cerebral lesion, there sometimes seems to be a congenital defect in the motor tracts of both brain and cord In the spinal variety there is often seen, soon after birth, rigidity of the limbs, at first this is only occasional, but as the child gets older, every effort to move a limb causes muscular rigidity in it The child does not attempt to walk until three or four years of age Then when it is supported under the arms and it tries to stand or to walk, the movements are very peculiar and characteristic The feet are extended and inverted so that the child rests on the toes The knees are strongly adducted and lock together so that the legs become entangled By degrees the child becomes able to walk with the aid of apparatus or some form of crutch The hands and arms are often affected, and every effort causes muscular rigidity to come on The mind is unaffected in these cases, and the speech may be distinct, although it is often very defective Sensation is unimpaired, and the patella reflex and ankle clonus are exaggerated There is no wasting of the muscles By these symptoms we infer that the disease is localized in the lateral columns, but exactly what is the nature of the lesion we do not know, for no post mortem examinations have been made in these cases The cause is unknown Hamilton found three of seven cases which he had collected were premature births Adherent and contracted prepuce has been thought by some to be caused by reflex influence of the spasmodic paralysis, but operation has not given relief The treatment should consist of massage, galvanism to the spine, ergot, and cod liver oil Fluid extract of conium may be given to allay spasm In severe cases great improvement follows this treatment

Even when we can do no positive good to the limbs, very much can be effected by the aid of apparatus Properly adjusted braces to the legs will enable a child to walk on crutches or on a Durrach wheel crutch

There is a form of spasmodic spinal paralysis in which the child is imbecile In these cases there has probably been congenital defect in cerebral development The head is small and there is no evidence of intellect, often nystagmus is present

Paralysis from Pott's Disease —Paralysis of the lower extremities may result from caries of the spine The lesion may be either a meningitis or a myelitis, if meningitis alone, there is considerable pain and contraction of the legs Generally there is a trans verse myelitis. The symptoms are numbness and pricking of the legs, with loss of sensation; gradually increasing loss of power, with wasting of the muscles; incontinence of fæces with retention or incontinence of urine. Sometimes there are ulcers over the sacrum or on the limbs.

The indications for treatment are evident. An apparatus which will take the weight of the body from the spine is necessary and is sometimes sufficient of itself. Frequently, however, the application of the actual cautery over the spine brings improvement in the symptoms when an apparatus has done no good. Massage and electricity should be used to restore the atrophied muscles.

Paralysis from Rachitis and Diphtheria is seldom complete. The former is often spoken of as the the pseudo palsy of rickets. Negro children, who are very subject to rachitis in cities, often have rachitic paralysis. The child at three or four years is unable to walk or stand. Sometimes it has not sufficient muscular development to sit upright. It can move every limb and has no loss of sensation, but has no power. Cod liver oil and massage bring about the most satisfactory results in these cases. *Diphtheritic paralysis* usually begins in the muscles of the soft palate and pharynx and extends to the extremities. It is generally bilateral and incomplete, but I have seen a case in which it was hemiplegic. It is considered peripheral in character, and is believed by some to be connected with the altered condition of the blood consequent on the original attack. Diphtheritic paralysis is rarely fatal, and lasts in most cases only a few weeks, although it may continue for months. Strychnia and electricity are the means to be employed, and the case usually responds promptly to these remedies.

Pseudo hypertrophic Paralysis is a rare affection, but is of much interest. The disease belongs almost exclusively to infancy. It is characterized by muscular paralysis with great increase in the bulk of the muscles. This enlargement is due to fatty deposit, while the muscular tissue proper is atrophied. The affection begins with weakness of the legs, a peculiar balancing of the trunk and separation of the legs in walking. The shoulders are thrown far back in standing and walking. There is great difficulty in getting from the sitting to a standing position. Later in the disease the muscles become wasted and shrunken, and the general health begins to suffer. Death results from implication of the respiratory muscles. The skin is mottled like a piece of castile soap. The tendon reflexes are abolished and electro muscular contractility is impaired. There is often a greater or less amount of mental weakness. There is no loss of power over the bladder and rectum, and sensation is not affected. Heredity influences the disease, which is slow in its progress, but the course is steadily downward.

Friedreich's Disease is still more rare than the preceding. It is practically locomotor ataxia in childhood. There is evidenced here also a hereditary predisposition, and the female children seem most liable.

Cerebral Palsies.—Hemiplegia may result from some injury at the time of birth, either from the forceps or from the pressure of a prolonged labor. A child may be born hemiplegic after a perfectly natural and easy labor. Under these circumstances we must regard the paralysis as the result of imperfect cerebral development. Hemiplegia, under these circumstances is generally permanent. The side affected grows less rapidly than the other. The flexors of the arm and hand are usually contracted. The leg becomes rigid in the act of walking. Convulsion is almost always associated with cerebral paralysis, either immediately preceding the attack or occurring soon after. The convulsive movements are most violent on the side which is subsequently paralyzed. The child will have an idiotic expression and speak indistinctly, but their friends think them intelligent. The convulsions are liable to return when the child is older, and then assume and epileptic form. The walk is peculiar and is called the spastic gait; the patient plods along looking as if he were about to pitch forward. The affected limbs are smaller and shorter, the growth of both bone and muscle being affected. In the choreic variety, where the arm is in constant motion, the muscles may become hypertrophied but the bone remains short.

Prognosis.—As a rule the prospect of recovery is bad; even if the patient gets well the hemiplegic side remains awkward.

Treatment.—Cod liver oil, and massage, which always relaxes the contracted muscles. The affected limbs should be used by the patient as much as possible.

DR. R. P. HARRIS inquired if Dr. Sinkler had ever observed any hereditary predisposition to convulsions and paralysis.

DR. SINKLER replied that the hereditary influence was decided even when no convulsions occurred.

DR. E. E. MONTGOMERY reported a case

OF OOPHORECTOMY.

Mrs. L., of Columbia, Pa., æt. 36 years, married ten years, pregnant five times, the last four years ago, was brought to my office by Dr. H. T. Chase. Her health has been bad since her last confinement. First menstruation at twelve and a half years, regular and very free for one and a half years, when she fell, producing pelvic distress, after which for seven years the flow was very scanty, lasting but one or two days and accompanied by excruciating pain. She improved somewhat after marriage. Her first conception was followed by so much nausea, vomiting and anæmia that her physician advised and induced an abortion. She is now regular as to time, but irregular as to quantity; it is preceded by an excruciating pain for two days, which continues until the flow disappears; she also has severe pain in the head. She is very nervous at all times, but this is much intensified during the period. Pain is more marked in the left inguinal region and down the corresponding limb. Coition and vaginal examination are very painful. The uterus is enlarged and painful, tender on pressure over both ovaries. Local uterine treatment had been kept up during the entire four years without relief. Trachelorrhaphy had been performed. Ovariotomy was advised.

Sept. 19, 1885, she entered my private hospital, and, assisted by Drs. W. H. and C. B. Warder and E. Eshleman, the uterine appendages were removed. The left ovary was composed of a number of cysts, the largest of which ruptured while adhesions were being separated. The right ovary was not enlarged, but it was removed to ensure relief. The wound was closed with silk-gut and dressed with sublimated gauze and absorbent cotton. There was no shock. The highest temperature reached was 101.6° at midnight of the 20th, and it was normal on the 22d. Sutures were removed on the eighth day, and the wound re-dressed for the first time. It had united throughout, and there was no irritation from the sutures. The effect upon her general health remains to be determined.

Dr. Montgomery also reported a case of

SUPRA-VAGINAL REMOVAL OF THE UTERUS AND BOTH OVARIES FOR FIBROID TUMOR.

Ann H., æt. 27, was brought to me by Dr. T. H. Boysen, of Egg Harbor City, with the following history. Her menses from the beginning occurred every three weeks and were free an entire week. During the last four years they have occurred every two weeks, and are attended with pain in the pelvis and down the limbs and severe pressure upon the bladder, causing frequent urination and sometimes necessitating the use of the catheter. Dr. Boysen had diagnosticated fibroid tumor, which my subsequent examination confirmed. The tumor was the size of a child's head, filling up the pelvis and apparently arising from the anterior wall. The examination led me to believe that the bladder was adherent over the anterior surface and would render the removal of the tumor unsafe. I suggested the removal of the ovaries.

She entered my private hospital Sept. 9, 1885, for that purpose. Drs. W. H. Warder, Boysen and Martin assisted, Drs. C. B. Warder and Staltweather present. An incision three inches long was made, and finding the tumor free from the bladder, with cervix sufficiently long to serve for a pedicle, the incision was extended to within an inch of the umbilicus above and symphysis below, and the tumor with some difficulty withdrawn. In the absence of a Tait's clamp which had been ordered some days before, the pedicle was constricted by a wire-ecraseur and the tumor with the ovaries was removed. The pedicle was then transfixed with two steel pins and tied in three sections with strong silk thread. The peritoneum was fastened to the pedicle below the ligatures, and the wound closed with silk gut sutures, the pins holding the stump outside. The wound was dressed with sublimated gauze and absorbent cotton. The operation was followed by some shock, temp. 97.4, pulse 104, from which she soon rallied. She complained greatly of pain. A half-grain of morphia had been given by suppository, and three hypodermic injections of morphia, one fourth grain each, were given during the afternoon before the pain was relieved.

At 3 A. M. of the 24th I was called by the nurse, who reported bleeding from the stump. Three ounces of blood had been lost. By aid of Dr. Warder, a Wells clamp was applied below the pins, apparently controlling the hæmorrhage, but it recurred later in the day from the angles and from beneath the clamp. By this time the Tait's clamp had arrived, and the patient was etherized, the three lower sutures removed, the pedicle drawn up, the clamp applied so as to control it completely, and the wound again closed. The wound had united throughout. Temperature reached 100.6 at 9.30 P. M. The highest subsequently, 101.6, was in the afternoon of the 25th, and it became normal on the 28th. Upon removing the dressings, on the 27th, some pus welled up about the pedicle. As the skin was irritated, the dead pedicle was cut away until the clamp slipped off. There resulted, of course, considerable retraction of the stump, but the sloughed tissue is now nearly cleared away. The patient suffers no pain or discomfort, temperature normal. The tumor was situated in the anterior wall and fundus of the uterus, and projected into the uterine cavity,

Dr. Parish remarked that removal of the ovaries had given such good results in cases of uterine fibroids, and was comparatively so free from danger, that he would like to hear from Dr. Montgomery his reason for his choice of operation.

Dr. Montgomery replied that the tumor filled the pelvis and pressed upon the bladder and rectum, causing great and constant distress. As diminution of the size of the fibroid tumor is not a certain result of oophorectomy, and as all the circumstances were in favor of the major operation, he decided upon it as the best one.

THE AMERICAN ACADEMY OF MEDICINE.

Ninth Annual Session, held in New York City, October 28 and 29.

The meeting was called to order by the President, Albert H. Gihon, M. D., of Washington.

The following were

ELECTED FELLOWS OF THE ACADEMY.

Drs. S. M. Nelson, Cambridge, Mass.; J. H. W. Chestnut, Phila.; Rufus W. Bishop, Chicago; E. E. Mariott, Springfield, Mass.; George N. Acker, Washington, D. C.; H. V. Logan, Scranton, Pa.; H. W. Elmer, Bridgton, N. J.; H. F. Hansell, Phila.; E. W. Cushing, Boston, Mass.; J. S. Wight, Brooklyn, L. I.; William Osgood, North Yarmouth, Me.; C. A. Packard, Bath, Me.; W. K. Oake, Aubern, Me.; A. Mitchel, Brunswick, Me.; D. A. Robinson, Bangor, Me.; C. A. Ring, Portland, Me.; J. A. Spaulding, Portland, Me.; G. W. Marshall, Milford, Del.; Wm. A. Hugie, Charleston, S. C.; J. B. Shapley, St. Louis, Mo.; M. H. Post, St. Louis, Mo.; C. E. Briggs, St. Louis, Mo.; J. S. Alleymen, St. Louis, Mo.; N. S. Davis, Jr., Chicago, Ill., and Charles Edgar Cook, Illinois. Dr. Henry H. Smith and Dr. S. Weir Mitchell, of Philadelphia were elected to honorary membership.

Dr Robert L Sibbett, of Carlisle, Pa, read a paper on

THE STUDY OF MEDICINE AS A MEANS OF EDUCATION

He first referred to the various elements in education, considering time the most important of these The medical colleges of the United States are, he thought, institutions not to be proud of In this country 219 medical colleges have been chartered at one time and another Of this number 147 were regular Ninety three of these colleges have become extinct Of this number fifty-seven were regular Contrasting this with the situation in Canada, it is found that there only fifteen medical colleges have been chartered, and of this number twelve remain, all of which are regular At the present time there are eighty seven colleges in this country teaching rational medicine, and twenty-nine teaching sectarian medicine of various kinds The practitioners of rational medicine have no need to come in contact with the practitioners of sectarian medicine in any way In boards of health and State examining boards it is not necessary to have any association with them Taking up the subject of medical teaching, preliminary examination with graded courses and frequent examinations were heartily recommended Now a person may graduate as a Doctor of Medicine, without having even a rudimentary knowledge of grammar and arithmetic The medical colleges must take the responsibility for such graduation A protracted course of academic training is necessary for a proper study of medicine

He concluded by saying that a State Medical Examining Board with full authority to examine all practitioners, irrespective of the degrees they may hold, would do more to elevate the profession, than all other means combined

Dr C McIntire, of Easton, Pa, read a paper on

MEDICAL SUPERVISION IN STUDENT LIFE

This paper assumed that the times had changed, that modern life made a greater demand upon the time and energies of the individual to the detriment of his health and development It was considered impossible to diminish tasks and give more time to rest and recreation There is no way known to shorten the period of rest, so something should be done for recreation The plan suggested was the usual one given by students on these subjects A careful physical examination at the beginning of school life and a series of graded bodily exercise under medical supervision throughout school life was recommended Many appear to be ignorant of the end to be obtained by a modern gymnasium, so that in colleges the parents of the pupils were afraid that their children would be injured But as the weaklings are the subject of especial care and direction they are the ones least apt to be harmed and most likely to be improved The end aimed at is to give such tasks as will tend to strengthen the weaker parts

Dr Henry O Marcy, of Boston read a paper on

THE CLIMATIC TREATMENT OF DISEASE, WITH AN ILLUSTRATION OF WESTERN NORTH CAROLINA AS A HEALTH RESORT

The fundamental factors of the zymotic diseases were first reviewed from our present knowledge of the rôle of the bacteria, and the question of the wise adaptability of the individual to his surroundings was considered as the best definition of climate A *resume* of the latest investigations of climatologists was given with reference to, and the results obtained by, the mountain health resorts of Europe and America The deductions of the writer were that good must be looked for in the benefit to be obtained to the individual in the improvement of his resisting vital powers and invigoration of his cellular tissue regeneration, rather than in his escape from his bacterial enemies The larger portion of the paper was devoted to the consideration of this new and important phase of the question of climate

The higher Alleghanies in Western North Carolina were described at considerable length as offering mountain health resorts of a character well suited to a variety of diseases The deductions were based on a long tour of personal investigation made during the last summer as a sanitary study

Evening Session

The President, Dr Albert L Gihon, read his *Annual Address*, entitled

WHAT IS MEDICINE?

He said that the place of the Academy was not to be sought among the pathological, clinical, sanitary, and other national associations It antagonizes none of these, but seeks to cement all into a compact unity Referring to the slow growth of the Academy, it was stated that one of the reasons was to be found in the fundamental condition of membership, restricting fellowship to graduates in medicine who have received degrees in letters by course As the cooperation of every educated man interested in the objects of the Academy is desirable, he was of the opinion that the time had come when every limitation to fellowship should be removed except the solitary requirement that the candidate shall be in fact, as in title, "learned in medicine," and in all else that this term implies, but he would make it impossible for any one unfit or unworthy to enter, though he may come with an armful of diplomas, have subscribed to the most inflexible of codes, and no matter what faculty, society or institution he may be delegated to represent The nominations should be accompanied with the fullest record evidence, and be made long enough in advance, from six to twelve months, to enable the council to determine each man's fitness

A second reason why the Academy had not met with more pronounced sympathy and support, is its necessarily hostile attitude to institutions and individuals who defy the principles of its constitution

The Academy encounters a third obstacle in the lukewarmness of its *quasi* friends, some damning it with faint praise, others exuberant in private but chary of public endorsement Reference was made to the case of a medical editor, who could not follow his wish in this respect on account of policy The editorial columns of the medical press were preeminently high toned, but the publishers were inconsistent in permitting under the same cover advertisements of medical concerns, drug factories, and proprietary clap-trap. Why should the business venture of men who get up sham colleges be advertised in reputable journals? The *New York Medical Record* commends the recent action of the Florida Medical Association in resolving against the advisability of establishing a medical college in that State. These are encouraging signs, offsetting the fact that thirty-nine of the eighty-seven regular schools in the United States are only fifteen years old, and twenty one not over five years. Reference was made to the fact that trashy communications of illiterate men were published simply because they were subscribers. The journals only reflect sentiment. Let us ask ourselves the question, "What is Medicine?"

If we look to this Academy for the answer, we shall find that it is the most profound and ennobling study which can engage the intellect of man. This is not the popular idea, which is that medicine is only something in a box, or bottle, that is prescribed by a man or woman who has acquired more or less skill in administering the particular remedy appropriate for each disease. Like other professions whose offices are called for by the disagreeable incidents of humanity it is only tolerated as a necessity. Sham aristocrats look down upon it; others hire its members as they do their cook or cabman. In military and naval services they are sought to be degraded. The ministry of the suffering and afflicted is nowhere regarded as an outcome of the study of the stupendous and sublime mysteries of existence. In the national councils, in military and naval organizations, in civic administrations, who thinks of giving a first place to a physician, although his are the mental attainments which fit him best for counsel in all that concerns the welfare and progress of the human race. The science of medicine involves the knowledge of everything that relates, however remotely, to the existence of man, his place in nature, his origin, growth and development, preservation and continuance. The prevention and cure of those abnormal conditions which tend to his destruction, are but one chapter in the volume, which, coming near the end, can not be read understandingly without the thorough comprehension and diligent study of all that precedes. Medicine is so far reaching in its sources and so connected with every other branch of knowledge, that he who would begin its study must first have drunk deep of the well spring of human knowledge. Medicine is a science of such proportions that only a well educated mind can master it. Is this the view entertained by the profession at large? What are the facts?

Let us see how the profession is recruited. Ordinarily a youth becomes a doctor, as it were, from a whim, and there are others, no longer young, and having failed in other occupations, they hope to make money by this, knowing nothing of its responsibilities and requirements, without aptitude, ignorant, illiterate, etc. Such a one goes to a college, and as a first course student listens to lectures on anatomy, practice, chemistry, surgery, etc., one after the other, without understanding a word of the technical language. Seventy-nine colleges require evidence of preliminary education. In most this is only specious. Recent instances of illiteracy on the part of graduates are the following: "Colume of murcury," "cours at Beleview," "anylitic," "assend," "admition," "diameter of the earth ninty-two thousand miles," "the field of the cloth of gold, some kind of tapestry," "an alterative acts like food on building up system, and are favored in their action by stomachic, or anything which arouses the system to action." Could the man who after graduation says "was began," and spells "gravatation, femeral, superating, corpusels," etc., have ever comprehended the language used by the teachers? Why should medicine be cheapened to every purchaser and the college debase its teaching to their limited understanding. A collection of theses presented to American medical colleges during the last five years would be more entertaining than "English as she is spoke." Only the utter ignorance of elementary chemical principles on the part of the men who study medicine, has made chemistry one of the seven chairs. It belongs to an academic course. What only can medicine be to the ignorant numbers who are annually mustered into the ranks of the profession? To these men, it can have no other aspect than that of a trade. Many enter upon it as a money making vocation. It was taught them as a source of pecuniary profit, and they practice it for the fees they get. Manifestly, then, medicine is not the same to all men, even medical men. If improper men can be excluded from national services, why not from State, county and city medical societies? This should be done for the protection of the community. Where a drug clerk kills one victim by his carelessness, he saves a hundred by recognizing errors in physicians' prescriptions. (Examples from apothecaries' files were given.)

The debasement of medical education to the capacity of the ordinary purchaser of a diploma, will eventually cause the profession to deserve the reproaches of its friends. The public gauge the profession by the men with whom they most frequently come in contact. The wise physician does not hesitate to say "I do not know." The typical doctor affects an omniscience in adverse ratio to his knowledge. Until the mystery of the first departure from health is made clear, all our therapeutics must be empirical, and fundamental methods of cure be speculative. If we have not learned where disease begins, we have at least learned that the follies and weaknesses of men have in their wake a multitude of ills, and these we can prevent, and the wise physician, learned in all that pertains to the normal life of the body, aims to protect it from these evil influences, which his experience has taught him will do it harm.

Preventive medicine has at last attained recognition as the highest aim of the physician's art. It establishes new relations of the physician to the social system. It is not creditable to the intelligence of the age that in the department controlling internal affairs, among bureaus of labor, statistics, agriculture, education and so on, there is no bureau of public health. Preventive medicine has more to do than warding off epidemic visitations of great scourges. Its most important duty is to consider the impairment of health of growing children through the sanitary defects of our school system, the prevention of insanity, the repression of crime. It is too much to expect antidotes for every microscopic germ. The tiny swarms around us are at once our friends and foes. If we do not antagonize them, they purify the air we breathe, the water we drink, the dirt we tread, and prey upon our natural waste. It is only our own folly that causes them to turn and rend us. We are too prone to hasty generalizations. We inconsistently denounce the doctrinaires, who affect to believe in the panegyric virtue of similars, and ourselves find cure-alls in quinia, cocaine, germicides, etc. Hence the greater need of impressing upon the tyro in medicine the fact that there are underlying principles never to be lost sight of. The chair of Institutes of Medicine has gradually been supplanted by that of Principles and Practice. If he were to banish chemistry and physics from medical colleges, he would establish a chair of the Philosophy of Medicine, to include the history of medicine, medical literature, medical jurisprudence and medical ethics.

Reform has been hampered by adherence to existing methods. It will not do merely to establish adjunct chairs. The starting point must be the requirement of a thorough preliminary education. Four annual terms are necessary. Descriptive anatomy and materia medica are enough for the first year. Histology and practical microscopy, physiology in all its relations, and the mechanical processes of pharmacy should occupy the second year. Hygiene, general pathology and general therapeutics for the third year. Special pathology, special therapeutics, the philosophy of medicine, medical history, jurisprudence and ethics for the fourth year. A fifth year may with advantage be devoted to clinical experience under supervision. Medicine has no need to rear its superstructure on any other foundation than the broad basis of fact.

(*To be concluded.*)

STATE MEDICINE

THE MEDICAL BILL AS CONSTRUED BY THE ATTORNEY-GENERAL OF INDIANA

The Right to Engage in the Practice of Medicine Subject to Such Restrictions as the Legislature may Reasonably Impose.

In answer to questions submitted by Dr. Metcalf, Secretary of the State Board of Health, of Indiana, the Attorney General has given the following elaborate opinion:

ATTORNEY GENERAL'S OFFICE,
INDIANAPOLIS, June 25, 1885.

Dr. C. N. Metcalf, Secretary of State Board of Health.

Sir—You submit to me the following questions, and solicit answers thereto:

1. "Can the General Assembly enact a law to regulate the practice of medicine?"

The right of every person to pursue any lawful calling he may see fit, and to do so in his own way, not encroaching on the rights of others, is recognized in this country, subject to such restrictions as may be deemed necessary for the public welfare, and none other. (Ex-parte Spinney, 10 Nev. 323, 334.)

The General Assembly may require the possession of certain qualifications to entitle a person to pursue the medical profession.

The right to reasonably regulate the practice of medicine rests on the police power of the State, which extends to the protection of the lives, limbs, health, comfort and quiet of all persons within the State. It subjects persons and property to burdens and restraints, in order to secure the general comfort, health and property of the State. (Cooley Const. Lim., Side page 572, 573, 574.)

The vocation of the physician is laudable and lawful, and the right of any person to engage in it is subject to such restrictions only as the Legislature may reasonably impose, in the exercise of its general police power. Laws of this kind have been sustained by the courts, and held to be constitutional.

Q. 2.—"What constitutes a reputable Medical College under Section 2 of the statute, and what evidence is required thereof?"

Section 1 and 2 of said statute are as follows: Section 1, "Be it enacted by the General Assembly of the State of Indiana that it shall be unlawful for any person to practice medicine, surgery or obstetrics in this State without first obtaining a license so to do, as hereafter provided."

Sec. 2. "Any person desiring to practice medicine, surgery or obstetrics in this State, shall procure from the Clerk of the Circuit Court of the county wherein he or she desires to practice, a license so to do, which license shall be issued to such person only when he or she shall have complied with the following conditions, to wit: When such applicant shall file with such Clerk his or her affidavit, stating that such applicant has regularly graduated in some reputable medical college, and shall exhibit to such Clerk the diploma held by such applicant, or when such applicant shall file with such Clerk his or her affidavit, and the affidavit of two reputable freeholders or householders of the county, stating that he or she has resided and practiced medicine, surgery and obstetrics in this State continuously for ten years immediately preceding the date of the taking effect of this act, stating particularly the locality or localities in which he or she practiced during such period, and the date and length of time in each locality, or when such applicant shall file with such Clerk his or her affidavit and the affidavit of two reputable freeholders or householders of the county, stating that he or she has resided and practiced, medicine, surgery and obstetrics in this State continuously for three years immediately preceding the date of the taking effect of this act, stating particularly the locality or localities in which he or she practiced during said period, and the date and length of time in each locality, and that he or she had prior to said date attended one full course of lectures in some reputable medical college. Such applicant shall pay to such Clerk for such license the sum of $1 50, and such Clerk shall record such license, together with the name of the college in which such applicant graduated, and the date of his or her diploma, in a book to be kept for such purpose, and which shall be a public record ”

1 No particular school or system of medical practice is preferred by the law, and no rights are conferred upon one not accorded to all, and a practitioner in his treatment is to be tested by the general doctrines of his school, and not by those of other schools and systems of medicine

All recognized schools and systems of medicine stand equal before the law and equally reputable The statute does not require the medical college to be incorporated from which the certificate or diploma is derived (Holmes vs Holde, 74 Me , 28–38)

Every institution, whether incorporated or unincorporated, organized in good faith for scientific instruction in medicine, surgery or obstetrics, and in which such scientific instruction is systematically imparted, without regard to the school of medicine under whose control or management it is, is a reputable medical college within the meaning of the statute

The graduation in, and diploma from a college, referred to by said statute, are not limited to an institution within the State of Indiana, or the United States

2 Under the statute, when an applicant shall file with the Clerk his or her affidavit, stating that such applicant has regularly graduated in some reputable medical college, and shall exhibit to such Clerk the diploma held by such applicant, it becomes the duty of the Clerk to issue to such applicant a license to practice his profession This is the only condition prescribed by the statute, and the officer can not require more from such applicant

Q 2 —“ Will the physician holding a certificate of membership of fifteen years standing in a Homœopathic Medical Society of another State, and has had ten years, though not continuous, practice in Indiana, be entitled to a license to practice medicine in Indiana?”

A certificate of membership in a medical society confers no rights under the statute The statute requires the Clerk to issue a license to three classes of physicians

1 Where the physician has graduated in some reputable medical college, and has received a diploma

2 Where he has resided and practiced medicine, surgery and obstetrics in this State continuously for ten years immediately preceding the date of the taking effect of the statute

3 Where he has resided and practiced medicine, surgery and obstetrics in this State continuously for three years immediately preceding the date of the taking effect of this act, and has attended one full course of lectures in some reputable medical college The letter of the statute requires the applicant to have resided and practiced medicine, surgery and obstetrics in this State continuously for ten years A similar statute has been sustained and held to be constitutional

The letter of our statute also requires the applicant to have practiced medicine, surgery and obstetrics in this State continuously for ten years, immediately preceding the date of the taking effect of the statute In Wert vs Clutter (37 Ohio St , 347) it was held that such ten years of continuous practice may embrace time since as well as before the taking effect of the statute, but the statute in Ohio is unlike our statute on this subject

In ex parte Spinney (10 Nev , 323) Beatty, J , held “that there is some reason for requiring ten year’s practice in this State as a qualification for the continued practice of medicine and surgery, but there is no sort of reason for requiring that practice to have extended over the particular ten year’s ‘immediately preceding the enactment of the law,’ and to this extent the law is unconstitutional To so decide, however, would leave a good and perfect statute, omitting only the words ‘next preceding the passage of this act’ ” In this latter proposition there was no concurrence by the other Judges, but Hawley, C J , held said clause to be constitutional, and it is proper to follow the letter of the statute, which declares that the applicant must have resided and practiced medicine, surgery and obstetrics in this State continuously for ten years, immediately preceding the date of the taking effect of the statute, before a license may be issued The term “continuous practice,” in the sense of the statute, does not mean constant practice, never ceasing

It is not necessary that a physician should have a patient each day during the ten years immediately preceding the operation of the statute to have been in continuous practice and to obtain a license

No criterion can be established on the basis of the quantity of business enjoyed by a physician to determine whether he has or not continuously practiced his profession for said time

If for said time the practice of medicine, surgery and obstetrics has been his profession and business, and he has not wholly abandoned it for another occupation, and he has practiced his profession as often as he has had requests and occasion to do so, I think he may be deemed to have continuously practiced medicine, surgery and obstetrics for ten years immediately preceding the operation of the statute, and is entitled to a license

Q 3 —“ Is a certificate of membership from either State Medical Society of this State sufficient to entitle the holder to a license to practice medicine in the State, provided the holder has never attended a medical school, and has not been in continuous practice in the State for ten years previous to the taking effect of the medical act?”

A —No

Q 4 —“ Does the statute apply to a person who undertakes to cure diseases by manipulating the patient’s body, by rubbing, kneading and pressure?”

A —The statute applies to persons desiring to practice medicine, surgery and obstetrics only, and it ought not to be so construed as to cover persons not substantially within its terms

In Wert vs Clutter, supra, the Court says ‘ This statute was not intended to create a right in anyone to practice medicine It was simply intended to prohibit the exercise of the right (which before was universal) by unqualified persons. The right remains in all persons, except those from whom it is taken away by the statute."

In Bibber vs. Simpson (59 Me., 181) suit was instituted for $51 for services rendered the defendant's intestate, at his special request, by the plaintiff as a clairvoyant.

It appeared from the plaintiff's testimony that she professed to be a clairvoyant, that when asked to examine the patient she saw the disease and felt as the patient did, that sittings or seances were of different durations from one quarter to one half of an hour each, that she did not pretend to understand medicine or anatomy, that she was requested by the intestate to visit him and render him professional services, and did so as by the account, that she helped him, but he died from taking cold, acquainted him with the prices, and he agreed to pay them, but never did.

Appleton, C. J., in deciding the case, says: "The services rendered are medical in their character. True, the plaintiff does not call herself a physician, but she visits her sick patients, examines their condition, determines the nature of the disease and prescribes the remedies deemed by her most appropriate. Whether the plaintiff calls herself a medical clairvoyant, or a clairvoyant physician, or a clear seeing physician, matters little, assuredly, such services as the plaintiff claims to have rendered, purport to be, and are to be deemed, medical, and are within the clear and obvious meaning of R. S., 1871, c. 13, Sec. 3, which provides that 'no person, except a physician or surgeon, who commenced prior to Feb. 16, 1831, or has received a medical degree at a public medical institution in the United States, or a license from the Maine Medical Association, shall recover any compensation for medical or surgical services, unless previous to such services he had obtained a certificate of good moral character from the municipal officers of the town where he then resided.' The plaintiff has not brought herself within the provisions of this section, and cannot maintain this action."

In Smith vs. Lane (24 Hun., 632), Daniels, J., says: "The action was brought to recover the price which it was alleged the defendant agreed to pay the plaintiff for the treatment of himself and wife for certain bodily disabilities. It consisted entirely of manipulations with the hands. It was performed by rubbing, kneading and pressure. The evidence given by the plaintiff was to the effect that he was employed by the defendant to perform these services for a specific compensation, and that he had performed them until the amount due him was the sum of $149. Upon the close of the case on his part, the referee dismissed the complaint because it appeared that the plaintiff was not a graduate of any medical school, and had no license permitting him to practice either medicine or surgery. The direction was given because of the prohibition contained in Chapter 436 of the laws of 1874, and, as no other reason appeared in the case, or the evidence which was given that would prevent the plaintiff from recovering, and whether this act contains anything subjecting him to such disability is the only substantial point which requires to be considered in the case. The statute in terms merely declared it to be a misdemeanor for any person to practice medicine or surgery who is not authorized to do so by a license or diploma from some chartered school, State Board of Medical Examiners, or Medical Society, or who shall practice under cover of a medical diploma illegally obtained, and for the purpose of qualifying a person neither licensed nor possessing a diploma of the nature of that mentioned to practice medicine or surgery, it was provided that he should obtain a certificate from the censors of a medical society either in the county, district or State, in which it should be set forth that he had been found qualified to practice all the branches of the medical art mentioned in it. It appears to be quite manifest that the object of the Legislature in the enactment of this chapter was only for regulating the practice of medicine or surgery, as those terms are usually or generally understood, and confining them to such significance, it is evident that they would not include the occupation of the plaintiff. The practice of medicine is a pursuit very generally known and understood, and so also is that of surgery. The former includes the application and use of medicines and drugs for the purpose of curing, mitigating or alleviating bodily disease, while the functions of the latter are limited to manual operations usually performed by surgical instruments or appliances. It was entirely proper for the Legislature by means of this chapter to prescribe the qualifications of the person who might be intrusted with the performance of these very important duties. The health and safety of society could be maintained and protected in no other manner.

"To allow incompetent or unqualified persons to administer, or apply medical agents, or to perform surgical operations, would be highly dangerous to the health as well as the lives of the persons who might be operated upon, and there is reason to believe that lasting and serious injuries as well as the loss of life have been produced by the improper use of medical agents and surgical implements and appliances. It was the purpose and object of the Legislature by this act, to prevent a continuance of deleterious practices of this nature, and to confine the uses of medicine and the operations of surgery to a class of persons who, upon examination should be found competent and qualified to follow their professional pursuits. No such danger could possibly arise from the treatment to which the plaintiff's occupation was confined. While it might be no benefit, it could hardly be possible that it could result in harm or injury, and for that reason no necessity existed for interfering with this pursuit by any action on the part of the Legislature. His system of practice was rather that of nursing than of either medicine or surgery. No bodily disability or diseases could either result from or be aggravated by the applications made by him, and what he did in no just sense either constituted the practice of medicine or surgery. He neither gave or applied drugs or medicine, nor used surgical instruments."

It is my opinion that our statute is susceptible of the same construction expressed in said case of such license the sum of $1 50, and such Clerk shall record such license, together with the name of the college in which such applicant graduated, and the date of his or her diploma, in a book to be kept for such purpose, and which shall be a public record "

1 No particular school or system of medical practice is preferred by the law, and no rights are conferred upon one not accorded to all, and a practitioner in his treatment is to be tested by the general doctrines of his school, and not by those of other schools and systems of medicine

All recognized schools and systems of medicine stand equal before the law and equally reputable The statute does not require the medical college to be incorporated from which the certificate or diploma is derived (Holmes vs Holde, 74 Me, 28–38)

Every institution, whether incorporated or unincorporated, organized in good faith for scientific instruction in medicine, surgery or obstetrics, and in which such scientific instruction is systematically imparted, without regard to the school of medicine under whose control or management it is, is a reputable medical college within the meaning of the statute

The graduation in, and diploma from a college, referred to by said statute, are not limited to an institution within the State of Indiana, or the United States

2 Under the statute, when an applicant shall file with the Clerk his or her affidavit, stating that such applicant has regularly graduated in some reputable medical college, and shall exhibit to such Clerk the diploma held by such applicant, it becomes the duty of the Clerk to issue to such applicant a license to practice his profession This is the only condition prescribed by the statute, and the officer can not require more from such applicant

Q 2 —"Will the physician holding a certificate of membership of fifteen years standing in a Homœopathic Medical Society of another State, and has had ten years, though not continuous, practice in Indiana, be entitled to a license to practice medicine in Indiana?"

A certificate of membership in a medical society confers no rights under the statute The statute requires the Clerk to issue a license to three classes of physicians

1 Where the physician has graduated in some reputable medical college, and has received a diploma

2 Where he has resided and practiced medicine, surgery and obstetrics in this State continuously for ten years immediately preceding the date of the taking effect of the statute

3 Where he has resided and practiced medicine, surgery and obstetrics in this State continuously for three years immediately preceding the date of the taking effect of this act, and has attended one full course of lectures in some reputable medical college The letter of the statute requires the applicant to have resided and practiced medicine, surgery and obstetrics in this State continuously for ten years A similar statute has been sustained and held to be constitutional

The letter of our statute also requires the applicant to have practiced medicine, surgery and obstetrics in this State continuously for ten years, immediately preceding the date of the taking effect of the statute In Wert vs Clutter (37 Ohio St, 347) it was held that such ten years of continuous practice may embrace time since as well as before the taking effect of the statute, but the statute in Ohio is unlike our statute on this subject

In ex parte Spinney (10 Nev, *323*) Beatty, J, held "that there is some reason for requiring ten year's practice in this State as a qualification for the continued practice of medicine and surgery, but there is no sort of reason for requiring that practice to have extended over the particular ten year's 'immediately preceding the enactment of the law,' and to this extent the law is unconstitutional To so decide, however, would leave a good and perfect statute, omitting only the words 'next preceding the passage of this act'" In this latter proposition there was no concurrence by the other Judges, but Hawley, C J, held said clause to be constitutional, and it is proper to follow the letter of the statute, which declares that the applicant must have resided and practiced medicine, surgery and obstetrics in this State continuously for ten years, immediately preceding the date of the taking effect of the statute, before a license may be issued The term "continuous practice," in the sense of the statute, does not mean constant practice, never ceasing

It is not necessary that a physician should have a patient each day during the ten years immediately preceding the operation of the statute to have been in continuous practice and to obtain a license

No criterion can be established on the basis of the quantity of business enjoyed by a physician to determine whether he has or not continuously practiced his profession for said time

If for said time the practice of medicine, surgery and obstetrics has been his profession and business, and he has not wholly abandoned it for another occupation, and he has practiced his profession as often as he has had requests and occasion to do so, I think he may be deemed to have continuously practiced medicine, surgery and obstetrics for ten years immediately preceding the operation of the statute, and is entitled to a license

Q 3 —"Is a certificate of membership from either State Medical Society of this State sufficient to entitle the holder to a license to practice medicine in the State, provided the holder has never attended a medical school, and has not been in continuous practice in the State for ten years previous to the taking effect of the medical act?"

A —No

Q 4 —"Does the statute apply to a person who undertakes to cure diseases by manipulating the patient's body, by rubbing, kneading and pressure?"

A —The statute applies to persons desiring to practice medicine, surgery and obstetrics only, and it ought not to be so construed as to cover persons not substantially within its terms

In Wert vs Clutter, supra, the Court says 'This statute was not intended to create a right in anyone to practice medicine It was simply intended to prohibit the exercise of the right (which before was universal) by unqualified persons. The right remains in all persons, except those from whom it is taken away by the statute."

In Bibber vs. Simpson (59 Me., 181) suit was instituted for $51 for services rendered the defendant's intestate, at his special request, by the plaintiff as a clairvoyant.

It appeared from the plaintiff's testimony that she professed to be a clairvoyant, that when asked to examine the patient she saw the disease and felt as the patient did, that sittings or seances were of different durations from one quarter to one half of an hour each, that she did not pretend to understand medicine or anatomy, that she was requested by the intestate to visit him and render him professional services, and did so as by the account, that she helped him, but he died from taking cold, acquainted him with the prices, and he agreed to pay them, but never did.

Appleton, C. J., in deciding the case, says: "The services rendered are medical in their character. True, the plaintiff does not call herself a physician, but she visits her sick patients, examines their condition, determines the nature of the disease and prescribes the remedies deemed by her most appropriate. Whether the plaintiff calls herself a medical clairvoyant, or a clairvoyant physician, or a clear seeing physician, matters little, assuredly, such services as the plaintiff claims to have rendered, purport to be, and are to be deemed, medical, and are within the clear and obvious meaning of R. S., 1871, c. 13, Sec. 3, which provides that 'no person, except a physician or surgeon, who commenced prior to Feb. 16, 1831, or has received a medical degree at a public medical institution in the United States, or a license from the Maine Medical Association, shall recover any compensation for medical or surgical services, unless previous to such services he had obtained a certificate of good moral character from the municipal officers of the town where he then resided.' The plaintiff has not brought herself within the provisions of this section, and cannot maintain this action."

In Smith vs. Lane (24 Hun., 632), Daniels, J., says: "The action was brought to recover the price which it was alleged the defendant agreed to pay the plaintiff for the treatment of himself and wife for certain bodily disabilities. It consisted entirely of manipulations with the hands. It was performed by rubbing, kneading and pressure. The evidence given by the plaintiff was to the effect that he was employed by the defendant to perform these services for a specific compensation, and that he had performed them until the amount due him was the sum of $149. Upon the close of the case on his part, the referee dismissed the complaint because it appeared that the plaintiff was not a graduate of any medical school, and had no license permitting him to practice either medicine or surgery. The direction was given because of the prohibition contained in Chapter 436 of the laws of 1874, and, as no other reason appeared in the case, or the evidence which was given that would prevent the plaintiff from recovering, and whether this act contains anything subjecting him to such disability, is the only substantial point which requires to be considered in the case. The statute in terms merely declared it to be a misdemeanor for any person to practice medicine or surgery who is not authorized to do so by a license or diploma from some chartered school, State Board of Medical Examiners, or Medical Society, or who shall practice under cover of a medical diploma illegally obtained, and for the purpose of qualifying a person neither licensed nor possessing a diploma of the nature of that mentioned to practice medicine or surgery, it was provided that he should obtain a certificate from the censors of a medical society either in the county, district or State, in which it should be set forth that he had been found qualified to practice all the branches of the medical art mentioned in it. It appears to be quite manifest that the object of the Legislature in the enactment of this chapter was only for regulating the practice of medicine or surgery, as those terms are usually or generally understood, and confining them to such significance, it is evident that they would not include the occupation of the plaintiff. The practice of medicine is a pursuit very generally known and understood, and so also is that of surgery. The former includes the application and use of medicines and drugs for the purpose of curing, mitigating or alleviating bodily disease, while the functions of the latter are limited to manual operations usually performed by surgical instruments or appliances. It was entirely proper for the Legislature by means of this chapter to prescribe the qualifications of the person who might be intrusted with the performance of these very important duties. The health and safety of society could be maintained and protected in no other manner.

"To allow incompetent or unqualified persons to administer, or apply medical agents, or to perform surgical operations, would be highly dangerous to the health as well as the lives of the persons who might be operated upon and there is reason to believe that lasting and serious injuries as well as the loss of life have been produced by the improper use of medical agents and surgical implements and appliances. It was the purpose and object of the Legislature by this act, to prevent a continuance of deleterious practices of this nature, and to confine the uses of medicine and the operations of surgery to a class of persons who, upon examination should be found competent and qualified to follow their professional pursuits. No such danger could possibly arise from the treatment to which the plaintiff's occupation was confined. While it might be no benefit, it could hardly be possible that it could result in harm or injury, and for that reason no necessity existed for interfering with this pursuit by any action on the part of the Legislature. His system of practice was rather that of nursing than of either medicine or surgery. No bodily disability or diseases could either result from or be aggravated by the applications made by him, and what he did in no just sense either constituted the practice of medicine or surgery. He neither gave or applied drugs or medicine, nor used surgical instruments."

It is my opinion that our statute is susceptible of the same construction expressed in said case of

mentions "occupation for the mind of a comforting character, if possible, and cultivation of a religious conviction of the sanctity of life and the sin of self-inflicted death"

A few days ago, Dr Germain Seé read a paper on the treatment of obesity The method which he adopted for getting rid of superfluous flesh is simple, and does not involve so severe a regimen as that prescribed by the late Mr Banting Azotized food is, the doctor holds, the great cause of fat, and accordingly he insists on a sparing consumption of meat Alcoholic beverages he proscribes altogether, but he allows the victims of corpulency as much tea as they can drink This is the entire programme, and the professor is confident that it suffices

G O M

DOMESTIC CORRESPONDENCE

ARTIFICIAL ANÆSTHESIA

To the Editor of the Journal

Dear Sir—I am very much surprised to see the statement made by your London correspondent pass into your Journal without comment in regard to the discovery of anæsthesia He states as follows "Dr Simpson has the reputation of having been the discoverer of anæsthesia like Dr Harvey, they were really the men who brought the discoveries practically into use, and pointed out to us clearly and truthfully the *modus operandi* of the circulation and anæsthesia[1]"

The following are the facts in the case as to the "Discovery of the Art of Artificial Anæsthesia"

ANÆSTHETICS OF THE ANCIENTS[2]

"The ancient Greeks, it is stated, possessed a plant called mandrake It belonged to the same family of plants as the belladonna, or deadly nightshade From the root of this plant was extracted, by means of wine, a narcotic which was employed by them as an anæsthetic Lucius Apuleius, who lived about 160 A D, and of whose works eleven editions were republished in the fourteenth and fifteenth centuries, says, 'that if a man has to have a limb mutilated, sawn, or burnt, he may take half an ounce of mandragora wine, and whilst he sleeps the member may be cut off without pain or sense' Another fact was noticed by the ancients, that many volatile substances acted more promptly by inhalation than by the stomach, and this form of medication was employed in Greece, Rome, and Arabia By their published works, the knowledge of these facts was extended to other parts of the world

"In China, in ancient times, the word *ma yo* meant not only Indian hemp, but anæsthetic medicine, other substances besides hemp entered into these benumbing recipes, such as the datura, a solanaceous plant, probably identical with the atropia mandragora, also aconite, hyoscyamus, etc Some of these drugs form constituents of the formula said to be employed by kidnappers of children, and robbers, and are therefore naturally forbidden in China, at the present time, to be sold or employed

"The Indian hemp, under the name *bhang*, was extensively used by the Mohammedans and others in Central Asia The most wonderful properties are ascribed to it 'Taken in excess, the spirits and demons may be seen, it confers prophetic powers, it is sometimes taken by persons wishing to indulge in spiritualism, and it is used as an antidote to forgetfulness' (Dudgeon)

"A strong impulse was given to the study and application of the 'different kinds of airs and gases' by the discovery of oxygen by Priestley and Scheele, in the middle of the last century, and numerous experiments were made by physicians with it Another still more practical result was obtained by Sir Humphrey Davy, and published in 1800 'That nitrous oxide appears capable of destroying physical pain, and may be used with advantage during surgical operations' This valuable and practical suggestion remained without fruit for a long time, and the surgeons, physicians, and accoucheurs still employed alcohol, in some form, or opium and its salts, to deaden as far as possible the sensibility to pain during their various operations It was not until 1844 that an effort was made in the United States to make Davy's discovery useful, by Dr Wells, a dentist of Hartford, Connecticut, U S, who made, December 11th, 1844, the first application of the nitrous oxide gas to relieve the pain of the extraction of a tooth But the crowning result was obtained in 1846 by Dr Morton in the Massachusetts General Hospital, where it was demonstrated successfully that the inhalation of 'ether' was capable of so deadening the sensibility of the nervous system, that any operation, no matter how painful, could be performed, and the patient not suffer from its effects It was also proven that ether was a safe anæsthetic if in a proper case, and dose was administered by a competent individual, this was done first by the late Dr John C Warren,[1] of Boston, through whom it was introduced to the profession It was not until 1847 that Dr Simpson discovered chloroform to be a substitute for ether"

The whole world owe the United States a debt of gratitude for the introduction and practical application of the two safest and most effectual anæsthetics, nitrous oxide, and ether American men of science have done more than all others in the discovery and employment of anæsthetics, and should therefore receive the credit due to them

Laurence Turnbull, M D

Philadelphia, Oct 26, 1885

TUBELESS TRACHEOTOMY

To the Editor of the Journal

Dear Sir—During the past few years, at the meeting of the various medical societies, I have heard my friend, Dr Byrd, make the statement that the method of treating a case of tracheotomy without a tube, or what has been called *tubeless tracheotomy*, was origi-

---

[1] Journal American Medical Association Oct. 24 1885

[2] Dr L Turnbull's Introduction to his first edition of his Manual of Anæsthesia March 1878

[1] The Advantages and Accidents of Artificial Anæsthesia by Laurence Turnbull M D Philadelphia 1878 p 208

[2] Surgical observations with cases made by J Mason Warren M D page 614

Smith vs Lane, and that our statute does not cover the person embraced by your question, and that he is not required to procure a license

Q 5—"Must women practicing obstetrics take out a license?"

A —No Women practicing obstetrics are expressly exempted from the operation of the statutes

Respectfully, FRANCIS T HORD,
Attorney-General

FOREIGN CORRESPONDENCE

LETTER FROM LONDON

(FROM OUR OWN CORRESPONDENT)

Port-wine in Gout—National Sanitary Congress—The Effects of Lightning—See's Treatment of Obesity

Certain classes of sufferers will derive comfort from the teachings of Dr Peter Hood and Dr Morton Granville They are alike in recommending the use of port-wine matured in the wood, as a customary stimulant between the attacks of gout Dr Hood says " Notwithstanding its bad reputation as a cause of gout, there is no more wholesome wine than genuine port, when it is well matured, and the chief fault which can be imputed to it is that of palatability, which renders people disposed to partake of it too liberally The wine merchant will allege that long keeping in wood will deprive the wine of two of its most valued qualities, color and flavor This may be disputed, but it does not admit of doubt that wines so treated are far more wholesome than those which are bottled earlier Two or three glasses daily of such wine will act as a grateful stimulant to the stomach, and will assist digestion, but a larger quantity will produce defective assimilation, and those who so exceed must not be surprised if they become victims of gout

Dr Mortimer Granville says, in his 'Gout in its Clinical Aspects " Stimulants are almost always, I believe, necessary in cases of a gouty tendency, and during the intervals of the attacks I impose no restriction except that all alcoholic beverages shall be taken with food, and that new or imperfectly fermented wines shall be avoided Port which has been long enough in the wood to be thoroughly matured before bottling I regard as not only permissible, but to be recommended, particularly in the cases of those who are subjected to much mental worry It may be gathered from other paragraphs that the two authors also concur in the belief that the real or supposed injuriousness of alcoholic liquids in gout is not to be ascribed to the alcohol which they contain, but rather to some products of imperfect or incomplete fermentation, and it is good to be able to place on record their protest against the recommendation of "intemperate abstinence" which has of late years found favor with certain classes of practitioners and patients

In another work on Gout by Dr Robson Roose, the volume has its *raison d'être* in a desire to emphasize the degree in which gout is dependent upon derangement of the liver, to which other symptoms are but secondary In this view both the preceding writers are in accord with him, even if they do not give so much prominence to the doctrine, and it may be said, generally speaking, that the tendency of modern medicine is towards a close study of the functions and derangements of this most important organ, which a few years ago had been somewhat dethroned from the position in medical estimation which it held in the days of Abernethy and his school, and was neglected for a more accurate study of the action of nerve influences in the production of disease There is always a risk when one class of considerations is brought into prominence by the progress of scientific discovery, that others of equal significance may for a time be left out of account

The National Sanitary Congress has had a successful meeting at Leicester, under the presidency of Professor de Chaumont, who delivered the inaugural address Referring to the progress of sanitary science, he instanced the increased and increasing healthiness of British troops Thirty years ago, the death rate in the army at home was eighteen per 1,000, while the returns of 1883 showed that it had diminished to six per 1,000 In India and the West Indies the decrease was still more marked With regard to the duration of life, he said that the average of the metropolis was about forty one, including such extremes as St George's in-the East, in which over crowded parish it was only twenty-eight, and Hampstead, where it was fifty-six In conclusion, the President referred to vaccination, calling it one of the greatest boons ever conferred on humanity A discussion took place as to the relative merits of isolation as opposed to vaccination for the prevention of small pox, in which the Leicester speakers strongly upheld the former

Dr Liman has recently made some interesting observations on the effects of lightning exhibited in the bodies of two men who were struck down while taking shelter from a storm beneath trees The hair was singed, and the skin in many places discolored On one of the bodies was seen one of those peculiar figures which have often been described as impressions of branches, twigs, etc , and which have given rise to the fiction that the body of a person struck by lightning will sometimes bear a kind of photographic picture of the trees, etc , near him In this case the figure resembled a palm leaf, but it was traced to the contact of the folds of the shirt, such parts as were under pressure remaining white, the rest being discolored brown In the case of both men, some of the internal organs were ruptured

Mr Wynn Westcott, M B , London, the Deputy Coroner for Central Middlesex, has written a book on "Suicide," in which he deals with its history, literature, jurisprudence, causation and prevention It would seem that nowadays, at least, the number of suicides in all great towns vastly exceeds that of those in the country Moreover, single persons are more susceptible to suicidal mania than married, while widowed people of either sex are singularly apt to seek relief from their sorrows in death Climate and race, too, affect singularly the statistics which Mr Wynn Westcott has been at the pains to collect As remedies against the self destructive tendency, he mentions "occupation for the mind of a comforting character, if possible, and cultivation of a religious conviction of the sanctity of life and the sin of self inflicted death "

A few days ago, Dr Germain Seé read a paper on the treatment of obesity The method which he adopted for getting rid of superfluous flesh is simple, and does not involve so severe a regimen as that prescribed by the late Mr Banting Azotized food is, the doctor holds, the great cause of fat, and accordingly he insists on a sparing consumption of meat Alcoholic beverages he proscribes altogether, but he allows the victims of corpulency as much tea as they can drink This is the entire programme, and the professor is confident that it suffices

G O M

DOMESTIC CORRESPONDENCE

ARTIFICIAL ANÆSTHESIA

To the Editor of the Journal

Dear Sir —I am very much surprised to see the statement made by your London correspondent pass into your Journal without comment in regard to the discovery of anæsthesia He states as follows "Dr Simpson has the reputation of having been the discoverer of anæsthesia like Dr Harvey, they were really the men who brought the discoveries practically into use, and pointed out to us clearly and truthfully the *modus operandi* of the circulation and anæsthesia [1]"

The following are the facts in the case as to the "Discovery of the Art of Artificial Anæsthesia "

ANÆSTHETICS OF THE ANCIENTS

"The ancient Greeks, it is stated, possessed a plant called mandrake It belonged to the same family of plants as the belladonna, or deadly nightshade From the root of this plant was extracted, by means of wine, a narcotic which was employed by them as an anæsthetic Lucius Apuleius, who lived about 160 A D , and of whose works eleven editions were republished in the fourteenth and fifteenth centuries, says, 'that if a man has to have a limb mutilated, sawn, or burnt, he may take half an ounce of mandragora wine, and whilst he sleeps the member may be cut off without pain or sense ' Another fact was noticed by the ancients, that many volatile substances acted more promptly by inhalation than by the stomach, and this form of medication was employed in Greece, Rome, and Arabia By their published works, the knowledge of these facts was extended to other parts of the world

"In China, in ancient times, the word *ma yo* meant not only Indian hemp, but anæsthetic medicine, other substances besides hemp entered into these benumbing recipes, such as the datura, a solanaceous plant, probably identical with the atropia mandragora, also aconite, hyoscyamus, etc Some of these drugs form constituents of the formula said to be employed by kidnappers of children, and robbers, and are therefore naturally forbidden in China, at the present time, to be sold or employed

"The Indian hemp, under the name *bhang*, was extensively used by the Mohammedans and others in Central Asia The most wonderful properties are ascribed to it 'Taken in excess, the spirits and demons may be seen, it confers prophetic powers, it is sometimes taken by persons wishing to indulge in spiritualism, and it is used as an antidote to forgetfulness ' (Dudgeon)

"A strong impulse was given to the study and application of the 'different kinds of airs and gases' by the discovery of oxygen by Priestley and Scheele, in the middle of the last century, and numerous experiments were made by physicians with it Another still more practical result was obtained by Sir Humphrey Davy, and published in 1800 'That nitrous oxide appears capable of destroying physical pain, and may be used with advantage during surgical operations ' This valuable and practical suggestion remained without fruit for a long time, and the surgeons, physicians, and accoucheurs still employed alcohol, in some form, or opium and its salts, to deaden as far as possible the sensibility to pain during their various operations It was not until 1844 that an effort was made in the United States to make Davy's discovery useful, by Dr Wells, a dentist of Hartford, Connecticut, U S , who made, December 11th, 1844, the first application of the nitrous oxide gas to relieve the pain of the extraction of a tooth But the crowning result was obtained in 1846 by Dr Morton in the Massachusetts General Hospital, where it was demonstrated successfully that the inhalation of 'ether' was capable of so deadening the sensibility of the nervous system, that any operation, no matter how painful, could be performed, and the patient not suffer from its effects It was also proven that ether was a safe anæsthetic if in a proper case, and dose was administered by a competent individual, this was done first by the late Dr John C Warren,[1] of Boston, through whom it was introduced to the profession It was not until 1847 that Dr Simpson discovered chloroform to be a substitute for ether "[2]

The whole world owe the United States a debt of gratitude for the introduction and practical application of the two safest and most effectual anæsthetics, nitrous oxide, and ether American men of science have done more than all others in the discovery and employment of anæsthetics, and should therefore receive the credit due to them

Laurence Turnbull, M D

Philadelphia, Oct 26, 1885

TUBELESS TRACHEOTOMY

To the Editor of the Journal

Dear Sir —During the past few years, at the meeting of the various medical societies, I have heard my friend, Dr Byrd, make the statement that the method of treating a case of tracheotomy without a tube, or what has been called *tubeless tracheotomy*, was originated by Dr Henry A Martin, of Boston, and he repeats the statement in his remarks on "Tetanus," in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, of October 10, 1885, page 400

---

[1] Journal American Medical Association Oct 24 1885

[2] Dr L Turnbull s Introduction to his first edition of his Manual of Anæsthesia March 1878

[1] The Advantages and Accidents of Artificial Anæsthesia by Laurence Turnbull M D Philadelphia 1878 p 208

[2] Surgical observations with cases made by I Mason Warren M D page 614

Now conceding all that Dr Byrd says of Dr Martin as a distinguished surgeon, he did not originate, introduce, or suggest this method of tracheotomy, and I cannot think that Dr Martin ever claimed it Dr Daniel Brainard was the surgeon who first made known and advocated this method, and it should be known as Brainard's operation for tracheotomy In the *American Journal of the Medical Sciences*, vol xxxviii, page 291, in an article entitled "Suggestions of Improvements in Tracheotomy, by Daniel Brainard, M D, of Chicago," will be found a complete description of this method, and in the *Chicago Medical Journal*, for 1859, page 134, after reporting a case operated on in this way, he goes on to say

"The suggestions which I have to offer in regard to tracheotomy, relate to the means of preventing hæmorrhage, to keeping the opening made by the operation pervious without resorting to a tube, and at the same time controlling the entrance of cold air abruptly into the lungs In order to prevent hæmorrhage I proceed in the following manner Having incised the skin and fascia by successive and careful incisions, I press the sterno hyoid, and sterno thyroid muscles to each side with the fingers, and thus expose the thyroid body This effected, I pass under the isthmus a director curved, or an aneurismal needle This is followed by a common suture needle, which may be passed with the blunt end foremost, armed with two very strong ligatures A ligature is then tied very firmly on each side, and the isthmus of the thyroid body divided between them A little dissection with a blunt instrument denudes the trachea to the required extent, and an opening can be made without danger of a drop of blood being drawn into it

"The ligatures which have been thus secured, serve the purpose of fixing the trachea, if desirable, and they may be tied behind the neck so as to raise it forward, and keep the wound open I never open the trachea until the hæmorrhage is stopped, and a large surface of it has been quite denuded" 2 '*Keeping the opening in the trachea pervious without resorting to a tube*'—The objections to a tube are twofold 1st, When the operation is performed for the extraction of a foreign body, it prevents its exit, and it is desirable to leave this opening in such a state that the foreign substance may escape whenever it becomes loosened from its situation in the bronchia 2d, In tracheotomy for croup, the prolonged sojourn of the tube has been considered, by the most eminent surgeons, as a cause of the pneumonias, which so frequently are the cause of death

"The necessity for using the tube I avoid by the following means Having denuded the trachea, insert a small suture needle, armed with a ligature, beneath two of its rings Withdraw the needle, and drawing gently upon the thread, make a semi circular incision on one side, so as to form a valve, readily opened by drawing upon the thread The opening thus formed can be kept patent, or be allowed to close at will"

It will thus be seen that what Dr Byrd claims for Dr Martin should be credited to Dr Brainard—a man who posessed a powerful and commanding intellect, who was a great and original genius in surgery, and who made many improvements and suggestions for the advancement of his favorite branch Prof Gross expressed his estimate of the man when he said "There are three great surgeons now living, and of the three Brainard is not the least"

Just now we frequently read in extracts from foreign journals about Martin's method of treating spina bifida with iodine injections, a plan originated and successfully used by Brainard thirty-five years ago, and the work of the Western surgeon is entirely ignored *Honor to whom honor is due*

MADISON REECE, M D

Abingdon, Ill, Oct 15th, 1885

BOOK REVIEWS

1 SITZUNGSBERICHTE DER PHYSIKALISCH-MEDICINISCHEN GESELLSCHAFT ZU WURZBURG 8vo, pp 164 Jahrgang, 1884

2 VERHANDLUNGEN DER PHYSIKALISCH-MEDICINISCHEN GESELLSCHAFT ZU WURTZBURG Herausgegeben von der Redactions-Commission der Gesellschaft, DR JOHANNES GAD, PROF DR W REUBOLD, DR KONRAD RIEGER Neue Folge, XVIII Band 8vo, pp 321 Wurtzburg

PROCEEDINGS OF THE PHYSICO-MEDICAL SOCIETY OF WURTZBURG Wurtzburg Stabel's University Press

We feel somewhat disposed to quarrel with the Publication Committee of the Wurtzburg Society for delaying the publication of these proceedings of 1884 until the middle of the present year Some of the papers and discussions are quite valuable, and all are more or less interesting, and there seems to be no good reason why they—the medical papers, at least—should not have been before the profession some time ago

1 The first paper in this volume is an interesting contribution to the subject of "Contortionists," by Hans Virchow And why the author should have gone out of his way to use such a word as *Schlangenmenschen* for *Contortionists* passes all understanding, especially as two highly educated Germans declared, on seeing the title, that it meant "Snake charmers" Be this as it may, the paper is an interesting contribution to the anatomy of contortionists

Dr H Maas contributes three papers to this volume, the first concerning *Plastic Operations in the Treatment of Ulcers*, pediculated flaps being turned from the adjacent sound parts, but a piece of healthy skin is left between the ulcer and the place whence the flap is taken, a method which, on histological grounds, is recommended by Kolliker His second paper is on the *Operations for the Cure of Ulcers of the Heel* After mentioning the operations recommended and performed by Mickulicz, Billroth and Czerny, the last two being by using granulating skin flaps, he refers to the operation recommended years ago by Wutzer and Scymanovsky—extirpation of the ulcer and transplantation of pediculated flaps He then reports an interesting case operated upon in this manner The third paper is the report of a remarkable case of *Lymphangioma* (with exhibition of patient) The patient was three years old, with an undescribed combination of lymphangiomatous tumors, with vascular angiomata of the skin On the patient's neck was a cystic lymphangioma, on the lower lip was a capillary tumor with perhaps cavernous dilated lymph-vessels, and in the right parotid region was a cavernous lymphangioma

Von Kolliker also contributes three articles, on the "Non-Existence of Embryonal Connective tissue Cells," the "Anatomy of the Clitoris," and on "Twin formation in Mammals" Ph Stohr has an article on "The Tonsils in Pyopneumothorax," and "Mucous Glands," which are chiefly of pathological interest Kirchner also has two papers, on "Cholesteatoma of the Temporal Bone," and "The Relation of Aural to General Diseases" J Gad has a short paper on the "Paths of Transmission and Centres in the Spinal Cord of the Frog" Rindfleish has a paper on the "Differential Diagnosis of Diphtheritic Tonsillitis," Rosenberger one on "Incarceration and the Radical Operation of Large Herniæ," and Rieger a long article on "Progressive Paralysis"

2 The second volume opens with a paper on the "Diagnostic Value of the Tubercle Bacillus," by Friedrich Muller, which contains nothing that could now be considered new C Fr W Krukenberg has a long article on "Hyaline," a chemico physiological study from the Wurtzburg Institute He also has an article on "Some Important Color-Reactions" Of great interest is A Kolliker's address at the opening of the new Anatomical Institute in Wurtzburg in 1883 Dr A Hausmann, formerly of St Louis, contributes some "Observations on Yellow Fever" Gad has a very long and interesting study on the same subject as in the paper in the first volume considered A Fick concludes the volume with a discussion of "Myothermic Questions and Experiments"

ASSOCIATION ITEMS

HONOR PRIZES

REPORT OF THE COMMITTEE

At the last meeting of the American Medical Association, in order to stimulate original research, a resolution was adopted offering *First and Second Honor Prizes* in each of the Sections for original papers in the same And in pursuance of a resolution, instructing the President of the Association to appoint a Committee of three, who should report subsequently through the JOURNAL, and "whose duty shall be to devise a system for the awarding of honors to those who may desire to present papers for prizes of honor in the different Sections at the next meeting of this Association," your Committee beg leave to report the following rules

1st No paper shall exceed thirty minutes in length

2d All papers must be sent sealed to the Secretaries of the Sections to which they belong, under a *nom de plume*, with the real name and accompanying *nom de-plume* sealed in envelopes and inclosed with the essays together with the real names and the *nom de-plume* of the papers to which they belong

3d There shall be three judges appointed in each Section on the afternoon of the first day one by the Chairman, one by the Secretary of the Section, and a third by the Section at large, who shall examine the papers, and decide on their merits, after which they shall return them to the Secretary, with the papers securing "first" and "second honor" so marked, and signed, by the judges concurring in that opinion, after which the Secretary shall open the corresponding envelopes in the presence of the judges, and announce the names of the authors securing the honors, who shall read their essays to the Sections to which they belong, as regular productions

If deemed worthy by the judges, all such other papers as are deemed meritorious by the judges, may be read before the Sections to which they belong, by their respective authors, who may obtain them at the hands of the Secretaries to whom they were first delivered

4th All papers competing for honors shall be in the hands of the Secretaries of the Sections to which they belong at least one week previous to the meeting of the Association at which they are to be presented

5th The judges are authorized to refuse honors to all papers deemed unworthy

6th No persons except members of the regular profession, will be deemed eligible to compete for honors

7th In the absence of their authors, papers receiving honors may be read by the Secretaries of the Sections in which they are presented

(Signed)

R HARVEY REED, Mansfield, O ,
JOHN H HOLLISTER, Chicago, Ill ,
JOHN MORRIS, Baltimore, Md ,
Committee

NINTH INTERNATIONAL MEDICAL CONGRESS, WASHINGTON, D C , 1887

[The following are some of the more important Rules adopted relating to the preliminary organization of the Congress —ED]

1 The Congress shall consist of members of the regular profession of medicine, who shall have inscribed their names on the register and shall have taken out their tickets of admission, and of such other scientific men as the Executive Committee of the Congress may see fit to admit

2 The dues for members of the Congress shall be ten dollars each for members residing in the United States

There shall be no dues for members residing in foreign countries

Each member of the Congress shall be entitled to receive a copy of the "Transactions" for 1887

3 The Congress shall be divided as follows, into seventeen Sections

I General Medicine
II General Surgery
III Military and Naval Surgery
IV Obstetrics
V Gynæcology
VI Therapeutics and Materia Medica
VII Anatomy
VIII Physiology
IX Pathology
X Diseases of Children
XI Ophthalmology
XII Otology and Laryngology
XIII Dermatology and Syphilis
XIV Public and International Hygiene
XV Collective Investigation, Nomenclature, Vital Statistics, and Climatology
XVI Psychological Medicine and Diseases of the Nervous System
XVII Dental and Oral Surgery

4 The General Meetings of the Congress shall be for the transaction of business and for addresses and communications of general scientific interest

* * * * * * *

8 The official languages of the Congress shall be English, French, and German

In the meetings of the Sections, no member shall be allowed to speak for more than ten minutes, with the exceptions of the readers of papers and those who introduce subjects for discussion, who may each occupy twenty minutes

9 The rules and programmes shall be published in English, French, and German

Each paper and address shall be printed in the "Transactions" in the language in which it was presented, and preliminary abstracts of papers and addresses also shall be printed, each in the language in which it is to be delivered

All discussions shall be printed in English

10 The President of the Congress, the Secretary-General, the Treasurer, the Chairman of the Finance Committee, and the Presidents of the Sections, shall together constitute an Executive Committee of the Congress, which Committee shall direct the business of the Congress, shall authorize all expenditures for the immediate purposes of the Congress, shall supervise and audit the accounts of the Treasurer, and shall fill all vacancies in the offices of the Congress and of the Sections This Committee shall have power to add to its membership, but the total number of members shall not exceed thirty A number equal to one-third of the members of the Committee shall constitute a quorum for the transaction of business

11 The Officers of the Congress shall be a President, Vice-Presidents, a Secretary-General, four Associate Secretaries, one of whom shall be the French Secretary, and one of whom shall be the German Secretary, a Treasurer, and the Chairman of the Finance Committee

12 The officers of each Section shall be a President, Vice-Presidents, Secretaries, and a Council

13 The officers of the Congress and the officers of the Sections shall be nominated to the Congress at the opening of its first session

MISCELLANEOUS

ALBERT OSBURN HOLMES, M D, of Calico, San Bernardino Co, Cal, died on October 13 He graduated from Cooper Medical College in 1882

FEMALE PHYSICIANS FOR INDIA —A National Association, with the object of supplying female medical aid to the women of India, has been recently formed in Great Britain by Lady Dufferin—the wife of the Indian Viceroy—and has received the patronage of Queen Victoria

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM OCTOBER 24 1885 TO OCTOBER 30 1885

Major D L Huntington, Surgeon U S Army, detailed on Board to inspect Army and Navy hospital buildings at Hot Springs, Ark (S O 245, A G O, Oct 24, 1885)

Major Henry McElderry, Surgeon, granted leave of absence for four months from Nov 1, 1885 (S O 246, A G O, Oct 26, 1885)

Captain J H Patzki, Asst Surgeon, appointed member of Board to meet at Forts Jackson and St Philip, La, on Nov 5, 1885, to select a site for the new quarters for the ordnance sergeants at those posts (S O 230, Dept East, Oct 28, 1885)

Captain G H Torney, Asst Surgeon, granted leave of absence for two months, to take effect after the return from leave of absence of J C Baily (Major) (S O 87, Div Atlantic, Oct 24, 1885)

First Lieut C C Barrows, Asst Surgeon, in addition to his other duties, to take temporary charge of office of the Medical Division, Dept Ariz (S O 102, Dept Ariz, Oct 17, 1885)

First Lieut C B Ewing, Asst Surgeon,—(Ft Leavenworth, Kan)—to accompany Congressional committee, of which Hon W S Holman is chairman, in its visit of inspection through Indian Ter (S O 160, Dept Mo, Oct 23, 1885)

First Lieut F J Ives, Asst Surgeon, relieved from temporary duty at Ft Laramie, Wyo, and ordered to Ft D A Russell, Wyo (S O 106, Dept Platte, Oct 22, 1885)

Lieut E R Morris, Asst Surgeon (recently appointed), assigned to duty at Ft Bayard, N M He will continue on detached service under orders of Dist Comd'r (S O 160, Dept Mo, Oct 23, 1885)

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE WEEK ENDED OCTOBER 31 1885

Austin, H W, Surgeon, to proceed to Portland, Maine, on special duty Oct 31, 1885

Carter, H R, Passsed Asst Surgeon, when relieved, to proceed to New Orléans, La, and assume charge of the Service Oct 27, 1885

Battle, K P, Asst Surgeon, granted leave of absence for thirty days Oct 27, 1885

Williams, L L, Asst Surgeon, to proceed to Chicago, Ill, for temporary duty Oct 28, 1885

CORRIGENDUM —In the article "Epidemic Cholera, its Symptoms, Pathology and Treatment," by Frederick Horner, M D, in the JOURNAL of September 5, the prescription should read

℞	Hydrarg chlor mitis	℈i
	Morphiæ sulphat	gr ii
	Bismuthi nitrat	ʒss
S	Divide into twelve powders, one every two hours	

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N S DAVIS

PUBLISHED WEEKLY

Vol V   Chicago, November 14, 1885   No 20

ORIGINAL ARTICLES

SUGGESTIONS IN REGARD TO THE CAUSATION AND TREATMENT OF ACUTE CORYZA[1]

BY AUSTIN FLINT, Sr, M D, LL D,

OF NEW YORK

Acute coryza may be produced traumatically by the inhalation of irritating gases Owing to a peculiar susceptibility, which with some persons is an idiosyncracy, the powder of certain substances, especially epicacuanha, produces the affection This is probably the explanation of the coryza which occurs in cases of so called hay asthma or hay fever The affection is an element in certain infectious diseases, especially rubeola, or measles Iodine, taken internally, in some persons produces this affection I do not purpose in this paper to consider the affection as occurring in the etiological and pathological connections just named, but as constituting what is commonly known as a "cold in the head," and the incipient stage of the epidemic disease known as influenza

When a person is said to "have taken cold," usually, as every one knows, the nostrils are first affected The affection may go no further, but in most instances it advances downward, sometimes affecting and sometimes passing over the pharynx and larynx, and ending in a bronchial inflammation The affection then may precede a "cold in the throat," a "cold in the windpipe," and a "cold in the chest" It is unnecessary to say that the proper medical names for these successive affections are rhinitis, pharyngitis, laryngitis, and bronchitis I need not also say that the term catarrh is often used in connection with the names of the several parts affected This term *Catarrh*, denoting an antiquated error, should long since have been excluded from medical nomenclature, and it is much to be regretted that the term has been adopted in the revised nomenclature recently published in London The name "cold," popularly used to denote coryza and the affections which follow it, implies that they are attributable to atmospheric influences of which the temperature is the factor They are especially attributed to the action of a current of air on the body when it is heated It is under these circumstances that a person is said to "take cold," and we all know how alive most people are to danger in this regard With many, one of the chief practical duties of life is to avoid "taking cold" Now I shall assume in this paper that coryza, when it occurs under circumstances implied by the name "cold in the head," is not the effect of an agency connected with the temperature of the atmosphere That the cause is atmospheric I admit, but the cause is of a special nature, and it is a reasonable supposition that the causative agent is a micro organism, in other words, the affection is parasitic The reasonableness of this view of the causation of coryza, is the first of the etiological suggestions which I propose to consider The question is, what are the grounds for the supposition that acute coryza is produced by a parasitic organism?

The notion that the affection which goes by the name "cold" is caused by cold, has very little to rest upon except its prevalence in and out of the medical profession It is a traditional notion nearly as fanciful as that expressed by the term catarrh, namely, that it is characterized by a secretion which flows down out of the brain Among those exposed by their occupations to violent alternations of heat and cold, coryza is not a frequent affection Long-continued exposure to cold, as in case of shipwreck, sleeping on the ground in a state of intoxication, etc, does not give rise to coryza. It is true that patients with this affection often refer it to some exposure, but this is because they suppose, as a matter of course, they must have "taken cold," and they accordingly fix upon a particular circumstance when and from which, they suppose the cold was taken In a large proportion of cases, however, the affection cannot be referred to any exposure, and it is not uncommon for patients to say that they cannot understand in what way they have "taken cold" Experience thus furnishes very little support for the notion that "a cold" is produced by cold

As is well known, coryza prevails to a greater or less extent at certain times and places, although the number of cases is not sufficient to constitute an epidemic prevalence How often is it remarked that "colds" are frequent, when they are not considered as cases of influenza This fact is evidence of the presence in the atmosphere of some special causative agent Such an agent, it is certain, is in the atmosphere whenever influenza prevails, and the coryza in influenza differs from that in ordinary "colds" only in that the nasal irritation or inflammation is usually more intense Now, if the coryza in influenza is due to a special atmospheric agent, a fair conclusion is that the same holds true in ordinary "colds," especially when the latter prevails more or less although not sufficiently to constitute an epidemic prevalence The atmospherical causative agent of the coryza is not an acrid or irritating material at the outset It is evidence of this that the development of the affection does not directly follow a sense of local injury or any olfactory sensation The coryza in other words, cannot be said to be produced traumatically The development of the coryza, and of the local affections in the parts below which follow, is consistent with the supposition of the presence of organisms which grow and multiply, and are carried by the inspiratory current of air to the pharynx, larynx, and bronchial tubes A fact which favors this view is the successive occurrence of pharyngitis, laryngitis, and bronchitis after certain intervals of time, namely from twelve to twenty-four hours In these intervals the parasite is multiplying in the situations from which it is to emigrate and form new colonies Acute coryza, like other parasitic diseases, is self-limited It runs a certain course, ending when the successive generations die out This is the explanation if the correctness of the parasitic doctrine be assumed

---

[1] Read at the meeting of the Fifth District Branch of the New York State Medical Association, Brooklyn Sept 23 1885

I have thus stated some rational grounds for the supposition that the acute coryza in influenza, and the affection known as a "cold" is produced by a parasitic organism To establish this view of the etiology of the affection it must be demonstrated that a special organism is always present in the affected part, that this organism is not found in this part or in other parts of the body when coryza does not exist, that the organism is capable of being cultivated outside of the body, and that coryza may be produced by placing pure cultures within the nostrils of man or lower animals The suggestion which I have here to make, is, that some one of our competent and enterprising microscopists undertake to obtain this proof

The suggestions in regard to the treatment of acute coryza are based on the supposed correctness of the parasitic doctrine If this doctrine be true, the great object of treatment is the destruction of the parasite, and if this can be done, the invasion of the situations below may be prevented, the affection being thus arrested in the Schneiderian membrane I have assumed all along that the coryza is the initial event in cases of "cold" and of influenza This is true of the majority of cases, but, exceptionally, as is well known, the affection may begin at the pharynx, the larynx or with the bronchial tubes In these cases the parasite travels without stopping beyond the nostrils, obtaining lodgment and forming colonies in either one of the situations just named With reference to the treatment of acute coryza, I have consulted the works of four American authors, each work able and of recent date The authors are Cohen, Ingalls, Robinson and Bosworth Of these authors, the parasitic causation is referred to by one only, Cohen, and by this author only in connection with influenza He does not dwell upon parasitic treatment, and by the others, parasiticides, as such, are not referred to All mention topical remedies, administered as powders by insufflation, or by a spray or vapor, but they are mentioned as remedies either to sooth or to excite the inflamed membrane, or as having antiphlogistic effect All mention a local remedy in repute among the Germans, and known as Brand's or the Brand Hager remedy, consisting of carbolic acid, 80 grs alcohol, half an ounce, liquor ammoniæ, 80 minims, and distilled water 154 minims The liquid is poured upon a sponge placed within a paper cone, and the vapor inhaled through the nostrils It is intelligible that this remedy may act as a parasiticide, but its efficacy is not attributed to that action by the authors just named

The parasitic doctrine of the etiology of coryza is not new Our distinguished countryman Mitchell who, like Moses, was permitted to see from afar the promised land in which medicine is now beginning to discover rich treasures, attributed influenza to the presence of a cryptogamic plant Sir Henry Holland in 1839 argued in favor of the animalcular origin of influenza and other diseases Some later writers (Hueter, Biermer), have considered as probable the bacterial origin of this affection The doctrine, however, has up to the present time, received so little consideration, that topical treatment with a view to the destruction of germs and organisms, has been tried to a very limited extent The permanganate of potassium, and the salicylate of soda, in solution, have been used, but with what success I am unable to say To these remedies is to be added the vapor of turpentine I have been told by one not of the medical profession, that the insufflation of quinia and camphor combined and pulverised has proved a successful method of abortive treatment Helmholtz found in his own case, that the injection of a solution of quinia into the nostrils, arrested the so called fever In other cases this treatment has not proved successful The efficient cause of this affection, however, is organic, but not an organism I have no facts to offer derived from my own experimental observations, respecting the employment of parasiticides or germicides for arresting a "cold" or an attack of influenza The opportunities for such observations are readily available by medical practitioners, and I submit, as a concluding suggestion, that a trial be made of the different articles of the materia medica, which are destructive of germs and living organisms without injury to the mucous membrane Should an article be found which is effective, prior to the demonstration of the parasitic doctrine, the successful treatment, it is needless to say, would furnish strong rational grounds for the support of this doctrine

THE UTILITY OF DRY DRESSINGS[1]

BY THOMAS C SMITH, M D,

OF WASHINGTON, D C

For several years it has been my practice to apply absorbent powders to such cases as I had formerly treated with ointments and lotions, and the treatment has been so satisfactory that I deem it a professional duty to urge its adoption by the profession

The vesicular and pustular diseases of the skin in infants were the first in which I adopted the "dry" treatment. A number of cases of so called *eczema facialis* and *E. capitis* were met within a short time, some of which had become chronic, had resisted all treatment, the doctor had been changed many times. Some of which had been under my own treatment by ointments and had been taken out of my charge and treated by regular and irregular practitioners, only to return to me for a new trial, in some hygienic and dietary conditions were bad. At one time I thought a remedy, which was to be a specific, had been found in the white precipitate used as strong as a dram to the ounce, but this expectation was doomed to follow others. Pounds of zinc and lead ointments had been prescribed for these cases with the usual results—disappointment to the physician and dissatisfaction on the part of patients and their friends. Some other course must be adopted, or some other doctor would take the case. I now determined to try the "dry" dressings, and one illustrative case will suffice to demonstrate the utility of the treatment.

---

[1] Read before the Medical Society of the District of Columbia October 7th 1885

In a family which I attend, a child, at that time ten years old, had been under treatment since birth for general eczema, which was worse, however, on the face and hands. The child's life had been almost a burden to her from the actual suffering caused by the disease and the annoyances due to the criticisms of children, who, besides making disparaging remarks, refused to play with her for fear of becoming contaminated. She had been under the treatment of many of the best physicians in the city without being benefited. Finally the disease seemed to die of itself. A second child in the same family became affected in the same way, and the parents were apprehensive that this child's case was to be the counterpart of the other. The face was covered with large crusts, from beneath which serum and pus were continually escaping to excoriate the healthy skin. The scalp was likewise affected, causing the hair to be matted to such an extent as to demand its removal by the scissors in order to keep the child at all decent. The hands and knees, also, were covered with large sores. It is unnecessary to further describe these appearances, as they are familiar to you all. It is proper to say, however, that this child was intensely scrofulous, as was the other one. As before remarked, the first child had been thoroughly treated, and in addition to cod liver oil took large doses and quantities of that arrant pharmacopœial fraud, syrup of the iodide of iron. This patient was put upon Scott's emulsion of cod liver oil, and locally a powder composed of oxide of zinc, starch, and a small quantity of carbolic acid, was applied freely. No effort was made to remove the crusts by poultices or water. Of course the child was washed on the healthy skin, and thoroughly dried, but the powder was not touched.

This is a point which cannot be too strongly emphasized—not to use water after the treatment by the powder has been commenced. The formation of a crust I look upon as a conservative process, and endeavor by the drying powders to provide a substitute which does not present the repulsive appearance of a crust. If the crust is let alone, it will begin to break off at the edges, and if the dressing is promptly applied to the surface vacated by the crust, and this policy vigorously followed up, it is surprising how soon the diseased area is contracted, and a repulsive sore healed.

To return to the patient, and complete the history of the case by saying that speedy relief ensued from the treatment. This is but a single case, yet it is typical of twenty five or thirty which might be recited. Some may conclude that the results obtained were due to the constitutional treatment, but in so large a number of instances has local treatment been found sufficient that the first place must be given to the local applications. Still I generally give internal treatment in these cases, and now rely almost entirely on the sulphide of calcium for that purpose. Gelatine coated pills are usually prescribed, varying in strength from one-tenth to one half grain, of which one is to be given three times daily, dissolved in water. I find this the most eligible method of prescribing the remedy. Recently I have been using a prescription somewhat like this for the powder, which is to be applied in these and other cases which will be mentioned further on, viz.:

℞ Zinci oxid. ʒiv
Acid. tannic. ʒss
Acid. carbolic. cryst. gr. viii
Amyli pulv. ʒiiss. M.

Of course the ingredients are varied to suit individual cases, but my object is only to indicate a formula. Sometimes boracic acid is added, but bismuth is seldom used in my prescriptions.

A word as to the manner of using the dressing. When the face or head is affected, use warm water for cleansing purposes. Remove any loose crusts which have been detached, and with a dredging box, or any other suitable means, apply the powder thoroughly and thickly. It is not practicable to keep any cloths on the face to retain the powder, hence it must be applied oftener, but on the head a close-fitting cap may be used. On an extremity, the diseased surface may be covered to the depth of one-fourth of an inch with the powder, over which a piece of absorbent cotton may be placed and kept in contact by a bandage. In the latter situations it may not be necessary to disturb the dressings for several days, and on removing these it will usually be found that the discharges have been absorbed and that the powder is more or less lumpy. Some of this may be brushed away and more powder applied, but it is never necessary to try to get a view of the surface beneath the powder, as that will be seen in due time.

But it is not these cases alone which have been benefited by the "dry" treatment. Excoriations about the buttocks in children who are badly fed and nursed, and between the folds of the skin in fat babies during warm weather, when the discharge is excessive, yield to this treatment. The moist stage of eczema in adults has been relieved also. In fact almost any discharging surface will be relieved sooner by powders than by ointments or lotions.

Two other classes of cases remain to be mentioned for consideration, viz., suppurating wounds and ulcers While a number in each class have been benefited, one case in each will be cited to show the efficacy of the treatment

In March, 1885, I was called to attend a man whose hand had been caught in the machinery in a planing mill The proximal end of the second phalanx of the middle finger of the right hand had been broken obliquely off, the joint torn open and dislocated, and the broken piece of bone adhering to the integument was lying on the side of the finger With some difficulty the dislocation was reduced and the finger placed upon a splint to which it was bandaged, and then the whole hand placed on another splint The wound had been washed with carbolic solution, which was also applied to the finger on cotton before bandaging On the third day erysipelas supervened, making it necessary to remove the splint from the finger, and dislocation ensued despite my efforts to prevent it On the subsidence of the erysipelas the wound in the finger was found to be filled with granulations, and a large quantity of pus escaped from the parts Iodoform ointment was ordered, and the wound daily cleansed with carbolized water, but things went from bad to worse, and finally, I ordered the powder compounded according to the formula above given Improvement commenced at once, suppuration diminished, the patient's appetite improved and his condition was encouraging in every way, when he left the city about three weeks after the injury was inflicted Shortly afterwards I received a letter from his physician in Pennsylvania, asking for a copy of the prescription for the powder, which he stated had proven very useful in the case and he desired to continue it I do not know what the result of the case was, although I believed that amputation of the finger would be necessary, still the comfort afforded the patient by the dressing mentioned, and the marked improvement in the appearance of the wound before the case passed from my charge, justifies me in saying that it was the proper treatment

About four months ago I was asked to see a lady about 65 years of age, who had been a cripple for four years from ulcers affecting the lower part of the right leg and foot The ulcers were deep and painful, and were probably of varicose nature The back of the ankle, the side of the foot as far as the metatarsophalangal joint and the plantar surface of the heel were the seat of about eight or ten ulcers, from all of which pus flowed in considerable quantity The tendo-achillis was exposed in the bottom of one of these ulcers

The patient had been, for years, using zinc ointment, and as she expressed it, "without doing any good " I directed her to cleanse the parts thoroughly, and then dry them with absorbent cotton, after which she was to fill each ulcer with the powder and heap the same on the surrounding surface She was then to cover the parts with absorbent cotton so as to prevent the powder from falling away, and finally secure the whole with a bandage The dressings were not to be removed for two days unless they became uncomfortable Improvement began at once, and at this time all the ulcers have healed except one The patient is able to bear her weight on her foot and walk without pain, and is very grateful in her expressions for the relief which has been afforded

Still another class of cases which I omitted to speak of before, may be mentioned now I have reference to cases of sore nipples In several cases recently under my care, the patients have been relieved by the dry applications after the usual ointments had failed to afford relief

I am not aware of any systematic effort to introduce dry dressings in the treatment of cases, such as have been herein mentioned Hewson's "dry earth" treatment was a move in the right direction and deserved more consideration than it received In looking over the prescription files in drug-stores, I have been struck with the remarkable absence of prescriptions for dusting powders and the great numbers of orders for ointments This has forced me to believe that the utility of dry dressings is not appreciated by the profession as it should be, and for that reason it is now introduced for discussion

In conclusion I wish to present the following propositions, which it is believed are based on correct principles —Dry dressings of the character above indicated in the treatment of cases such as those referred to are rational, comfortable, cleanly, easily applied, antiseptic and efficacious

DISEASES OF THE ANTRUM HIGHMORIANUM, WITH REPORT OF TWO CASES[1]

BY G W HUDSON, M D,

OF CAMDEN ARK

It was not until the knowledge of anatomy had made considerable progress that the existence of this cavity was known Highmore, in the early part of the seventeenth century, was the first anatomist to give a correct description of this cavity I hope it will not be thought presumption in me to call attention briefly to the anatomical outlines of this cavity

It should be remembered, in connection with diseases of the maxillary sinuses, that this cavity is of considerable size, with walls of different thickness In youth the walls are thick and the cavity small After attaining its maximum size in the adult it is again diminished in old age It is larger in males than in females But in adult life its size varies in different subjects, and the larger the cavity the thinner the walls The roof is formed by the orbital plate, and the thickness of the floor by the alveolar process, the inner wall or base presents, in the disarticulated bone, a large irregular aperture, which communicates with the nasal fossa The margins of this aperture are thin and ragged, and consequently easily broken down in cachectic subjects with disease of the nasal cavity of a chronic, mercurial, or venereal nature

Owing to the close proximity of the floor of the sinus to the alveola, the roots of the molars, bicuspid and cuspid teeth frequently enter the cavity, and if all the circumstances connected with diseases of the antrum could be ascertained, the majority of them doubtless have their exciting causes in a diseased condition of the teeth, gums, or alveolar process

---

[1] Read before the State Medical Society of Arkansas April 22 1885

I have had several cases of disease of the antrum under my observation within the last two years, and with two or three exceptions, the exciting or premonitory cause was found in decayed teeth, or periodental abscesses The most simple way to find out whether the teeth are the offending cause is to tap each tooth sharply with an instrument, when, if there is one that is diseased at the root or enters a diseased antrum, the patient will cry out with pain There are other lesions of this cavity, caused by carelessness in extracting teeth, and by direct blows upon the face, or the patient may contract a violent cold, the excitement expends itself about the nerves, the Schneiderian membrane becomes inflamed, and by simple continuity of structure the lining membrane of the sinus becomes vascularly excited or congested to such an extent as to close the opening into the nerves The mucus thus confined will, if not removed, sooner or later become purulent, and make its exit through the most dependent points of the cavity, which generally proves to be either through the nasal septum or the alveolar cavities, burrowing along the fangs, escaping around the necks of the teeth, and occasionally through the cheek Cases are reported in which the orbital plate gave way and the pus found its exit somewhere along the lower eyelid The cavity is also subject to some of the most formidable and dangerous growths, both malignant and non malignant, that the physician or surgeon is ever called upon to treat

The symptoms of a diseased maxillary sinus are varied I have generally found the patient complaining of a heavy, dull sensation in the cheek, and at times of an acute lancinating pain, usually attended by some constitutional disturbance, high temperature and rigors I wish to insist upon the importance of an early diagnosis, as it may be safely assumed that in a large majority of the cases of disease of the antrum, the danger to be apprehended arises more from neglect than from any necessarily fatal character of the malady My experience warrants me in saying that the majority of the cases that have come under my care have been sadly neglected, and treated for everything but the real disease The rule (unless the case is well marked) is to give the patient some simple remedy for nasal catarrh—or his case is pronounced one of facial neuralgia, and some favorite panacea prescribed

The treatment of incipient disease of the antrum is generally very simple Success depends in these cases (as in all others) upon an early and proper diagnosis Remove the cause of offense, when possible, either by surgical procedure or judicious medication The following case will illustrate what I have been trying to explain,

Mr W , aged 58, merchant, had suffered a great deal from pains in his face and head He had been under treatment almost constantly for five years for facial neuralgia. His teeth had been defective for ten years, frequently has abscesses around the superior molars of the left side Gums swollen, a heavy, dull pain in the cheek under the eye, attended at times with fever and rigors Nasal cavity dry and hot Suspecting disease of the antrum, I advised the extraction of the decayed teeth, to which he reluctantly consented After extracting the teeth, upon examination, I found the alveolar processes spongy and bathed in pus, which went to confirm my diagnosis,—then, with a triangular pointed instrument, the floor of the antrum was perforated through the alveolar cavity of the first molar, the withdrawal of the instrument was followed by about half a teaspoonful of muco purulent fluid, showing conclusively that this cavity had been diseased for some time

The treatment consisted in syringing out the cavity twice a day with warm water and a wash composed of compound tincture of iodine and Listerine—each time closing the opening with a pledget of absorbent cotton This treatment was kept up about six weeks At the expiration of this time he reported himself perfectly well, and twelve months have now elapsed and he has had no return of his former trouble

Case 2 —Mr K , aged 48, teacher, has suffered more or less with pains in the face and head for ten years All of his teeth were extracted two years ago The pain was of a heavy, dull character, extending from below the left eye to the eye, temple and ear, simulating neuralgia to a marked extent For twelve months before he came under my charge, he had violent clonic contractions of the facial muscles of the left side, particularly of the masseter muscle, coming on every fifteen or twenty minutes and lasting eight or ten seconds—when the spasm came on he had to stop talking or eating, and catch his jaw and hold it until the paroxysm passed off He also complained of a tickling sensation in the throat, as though something was dripping from the soft palate There was no tumefaction of the gums or soft parts The palatal and maxillary bones were to all appearance in a healthy condition The muscles of the face were soft and somewhat relaxed when the paroxysms passed off No appearance of paralysis The lower eyelid a little everted, sight very good, hearing dull, tympanic membrane normal, though pale The speech was more thick than usual The mucous membrane of the pharynx and posterior nares was thickened and indurated

With this array of symptoms, I did not venture upon a diagnosis, and my prognosis was not favorable to a rapid recovery Suspecting, however, that a diseased condition of the antrum might be the exciting cause of some of the prominent symptoms, I advised trephining the sinus, to which he consented The operation was commenced by making a crucial incision through the gums over the alveolar process near the origin of the second molar, and after desecting back the flaps, the floor of the antrum was perforated with a triangular pointed instrument, and a quantity of muco purulent fluid escaped The subsequent treatment of the cavity consisted in using astringent and detergent washes

The muscular contraction was slow to yield Electricity, both galvanic and Faradaic, was used, but only aggravated the paroxysms A prescription of phosphide of zinc and strychnine seemed well suited to the case, and he improved rapidly on it At the expiration of about eight weeks he reported himself cured, and has no symptoms of his former trouble

In making my report of this second case, I shall leave you to draw your own inferences, for I must say that some of the symptoms were very obscure, and I have been unable to account for them

---

CHRONIC CONJUNCTIVITIS DEPENDENT UPON DISEASE OF THE INTRA-NASAL TISSUES[1]

BY N R GORDON, M D,

OF SPRINGFIELD ILLS

There is a form of conjunctival disease which is dependent upon chronic inflammation of the intra-nasal tissues I am not aware that any author has made special mention of this subject, but some have given a passing notice without particular effort to portray the condition of the nasal and ocular mucous membrane The intimate connection existing between the conjunctiva and the Schneiderean membrane through the medium of the vaso motor and sympathetic nerves, does not here require elucidation

Observation has taught that irritation affecting the ocular mucous membrane is reflected to the nasal mucous membrane, and *vice versa,* this action takes place through the intervention of the vaso motor nervous system This conjunctival disease is chronic inflammation of the conjunctiva and the connecting tissues, accompanied by increased thickness of the membrane, especially of the palpebral portion, which is very slightly roughened, giving it somewhat the appearance of trachoma in a mild form The tarsal cartilages, tarsal glands and ciliary follicles are more or less involved, with marked lachrymation and photophobia, pain is sometimes intermittent, more severe in afternoon These cases are very chronic in character, and possibly in the majority of instances have been cases of trachoma, which may be the legitimate offspring of conjunctival inflammation, the trachomatous growth has either been destroyed by treatment, or not appeared as a sequel or complication of the inflammatory action Usually the former condition exists

My experience does not enable me to give any reliable diagnostic symptom or condition which would aid in the discrimination between the idiopathic and sympathetic form of chronic conjunctivitis, that is, from the examination of the eye alone, but the diagnosis may be determined by the coexistence of disease of the intra-nasal tissues This disease of the intra nasal tissue is usually a chronic rhinitis, of the hypertrophic character—mucous membrane exquisitely sensitive, with an abundant flow of thin, watery mucus

The objective symptoms are those of acute rhinitis, with a chronic duration, or with the appearance as presented in so called hay fever A marked and important character of the conjunctivitis is its chronicity, it is not limited by weeks or months, but years, it yields slowly and only temporarily to the orthodox method of treatment of chronic conjunctivitis The patient contracts cold with great ease and frequency, followed by an increase in the already copious flow of mucus from the nasal passages, also an increase in the grade of inflammation of the conjunctiva, often muscular rheumatoid pains, especially in patients beyond middle life

The successful management of this form of conjunctivitis depends upon the proper treatment directed to the nasal passages Dr Noyes says that nasal catarrh often is causative of conjunctivitis, and when such is the case requires treatment Many cases of chronic conjunctivitis that visit the oculist for months to receive treatment for the eye alone, may be speedily cured by directing the treatment to the nasal and post-nasal surfaces, thus making the ophthalmic treatment secondary in importance, as will be developed in the report of cases Vaseline, in which there is incorporated a small amount of eucalyptol and pinus Canadensis, is sprayed in the nasal and post-nasal passages daily, until the parts give evidence of improvement, which is usually about two weeks, then less frequent until the patient recovers

The ophthalmic treatment consists in the application of plain vaseline, or in combination with boracic acid This application, which is made by the patient, should be very free and frequent, three or four times per day, with considerable friction Suitable systemic medication is prescribed according to the indications Under this treatment I have seen rapid recovery take place of the most severe forms of chronic conjunctivitis, as is shown in the following cases

Case 1 —Mrs M , aged 53 years, eyes affected for seventeen years During the last eighteen months of this time she states they were in the condition in which I found them at the time of her first visit to my office, Nov 25th, 1884 The conjunctiva was intensely red and injected, and somewhat roughened from hypertrophy of papilla, and epithelium, tarsal cartilages and tarsal glands, and ciliary follicles were involved, great lachrymation and photophobia, the diffused light from the window caused an increase in pain She was led by an assistant

The intra-nasal tissue was found to present the condition characterized by chronic rhinitis with hypertrophy of the turbinated processes, copious flow of watery mucus from the nasal cavities, and increased amount of sticky, tenacious mucus from the post-nasal surface The posterior wall of pharynx was ramified by enlarged tortuous blood-vessels, indicating the existence of chronic inflammation She was treated daily for three weeks, at which time she was considered well enough to return home About the middle of January, six weeks after the time she began treatment, she returned to my office, her eyes looking quite well, and but little indication of the former disease Thus within the space of six weeks she was cured, and her eyes remain well to the present time

Case 2 —Mrs G aged 50, eyes affected for twelve years At the time of her first visit to my office, June 24, 1884, her vision was $\frac{20}{cc}$, which condition she affirmed had existed for four or five years

Examination revealed practically the same condi tion as existed in Case 1, as regards the ocular and nasal mucous membrane, except a slight degree of pannus, which would account for the great loss in vision

---

[1] Read before the American Rhinological Association Lexington, Ky , October 1885

This patient was under treatment for two months, when she was dismissed as cured She recently informed me by letter that her eyes have remained well, that vision has improved, and she is now able to read ordinary print

The above cases were both treated, prior to my treatment, by eminent oculists, from nine to twelve months each, without perceptible improvement, one had spent a term at Eureka Springs, Ark Other cases could be reported, but it is unnecessary, these show, by the immediate and perfect recovery in each case, the efficacy and correctness of the treatment The conclusions, therefore, as the above cases had persistently resisted the usual method of treatment for like conditions, and the rapid and perfect recovery from the treatment as above described, is positive evidence of the correctness of the diagnosis and value of treatment

The local sedative treatment to the nasal mucous membrane relieved the irritation reflex of the conjunctiva, thus making recovery possible, which otherwise could not be, while the primary point of disease was disregarded

---

THE RATIONAL TREATMENT OF PULMONARY DISEASES BY THE PNEUMATIC CABINET

BY W EVERETT SMITH, M D (HARV)

FELLOW OF THE MASSACHUSETTS MEDICAL SOCIETY MEMBER OF THE AMERICAN MEDICAL ASSOCIATION FORMERLY ASST PHYSICIAN TO THE MASSACHUSETTS HOME FOR INTEMPERATE WOMEN

The use of the Pneumatic Cabinet[1] marks a new era in the treatment of lung diseases Until within about thirty years, pulmonary consumption was almost universally regarded as an incurable disease Indeed, it was only the occasional discovery of fibrous or cicatricial tissue and of calcareous masses in the lungs of patients who had died of other diseases, and in whose lungs there were no evidences of any recent inflammatory processes, that gradually led the medical world to believe that consumption could ever be cured Yet still the fact remained that the vast majority of patients with destructive lung diseases died The possibility of a cure being, however, conclusively established, the causes of these diseases began to be more carefully studied, with the hope of finally discovering some treatment directed to the removal of these causes

Many have been the methods advised—the internal administration of wood naphtha, cod liver oil, phosphate of lime, the hypophosphites, chlorate of potassa, benzoate of soda, various modes of counter-irritation, mercurialization, antimonial and other nauseating cough mixtures, vacuum cures, inhalations, etc , etc All may have their modicum of value, but all have failed to work the desired cure because they were not founded upon a physiological basis "It is a sound maxim in medicine," says Dr Austin Flint, "that the therapeutical indications derived from science and from nature, as a rule, should harmonize, and I will add that the true principles of therapeutics are in accordance with the dictates of common sense "

Adequately, to cope with disease, then, it is necessary thoroughly to understand the functions and requirements of health, and it is suggestive of the value of the treatment of lung diseases by the Pneumatic Cabinet that "its development is in line with and depends upon physiological axioms The life of lung tissue depends upon pure air, any interruption or irregularity in this supply means lung disease Whenever, then, lung tissue is consolidated, as in the early stages of tubercular phthisis, or as the result of pleuritic effusions or empyema, or by direct inflammation, as in an unresolved pneumonia, the life and healthful activity of the respiratory system is seriously impeded To expand these consolidated portions, and at the same time to deposit remedial and antiseptic agents in the inflamed lung cells, is the method and the theory of the treatment by the Pneumatic Cabinet

The Cabinet is practically an air-tight iron safe about seven feet high, two feet wide and two and a half feet deep, large enough, in fact, for a patient to stand or sit in In the rear is a heavy door fitted with bolts, but ingeniously opened and closed by a single turn of the hand In front is a large plate glass window, through which passes a gutta percha tube having a stop cock on the outside, and ending in a trumpet shape for receiving the medicated spray The tube within the Cabinet is fitted to a flexible rubber mouthpiece for the patient The patient enters the Cabinet and seats himself opposite the window The door is closed and the air is rarefied by an air pump to the desired degree as represented by the fall of mercury in a barometer connected with the inside of the Cabinet The degree of rarefaction is usually that represented by a barometric fall of from one tenth of an inch to an inch and a half, each tenth of an inch being equivalent to an altitude of 100 feet as regards the removal of external pressure from the chest walls The patient now inserts the inhaling tube in his mouth and compresses the nostrils with the fingers to prevent the escape of air through the nose, the stop cock is opened and the outside air rushes in, carrying with it the medicated spray, which is atomized by a powerful cylinder of compressed air The effect is a *forced involuntary inspiration* followed by a *forced voluntary expiration* These respiratory movements are continued for several minutes, but upon the least fatigue the stop cock is closed, the patient removes the tube from the mouth, and breathes the rarefied air of the Cabinet until ready for another application The treatment varies in duration from ten to thirty minutes, and is repeated either daily or at intervals of two or three days, the number of applications varying, the greatest number being 105—a case of acute catarrhal phthisis in Dr Williams' practice, which recovered

The peculiar value of this treatment lies "in the *combination* of the medicated spray with the increased strength of the inspiratory movements " A much fuller expansion of the chest is produced than is possible by an ordinary full inspiration, and at the same time the medicated spray being carried to the lung cells with much greater force than by a natural inspiration, is deposited in the very deepest and most remote portions of the lungs Antiseptic air thus administered, must condense under the increased pressure due to the active expiratory effort, and be deposited in cavities or other diseased portions of the lungs

---

[1] Introduced to the profession by Dr Herb F Williams of Brooklyn N Y See article in New York Medical Record Jan 17 1885

At the same time one must not neglect to consider the beneficial effects of removing the external pressure of the atmosphere from the chest walls In the first place, the active and passive movements of the respiratory act being reversed, the breathing takes place not merely with the ordinary *tidal* volume of air (which is carried by inspiration only to the trachea and larger bronchial tubes, reaching the lung cells in obedience simply to the law of the diffusion of gases), but also with the much larger volume of *complemental* air When properly conducted therefore, a calisthenic action is produced which expands and develops even the healthy chest, and which is beneficial from a mere hygienic standpoint Indeed, spirometric tests before and after a course of treatment, have demonstrated an increase in vital or volumetric capacity of from twenty-five to one hundred per cent, and a corresponding development both of chest measurements and of chest expansion The removal of the external pressure causes moreover such an expansion of air in the bronchial tubes as forcibly to expel secretions, which may have so accumulated as seriously to impede the proper expansion of air vesicles Finally, the influence of this treatment upon the circulation is very instructive and worthy of the most careful study We know that in ordinary inspiration, arterial tension is increased while in expiration it is correspondingly decreased In forced respiration, in a rarefied atmosphere, the proportionate difference between the blood pressure in inspiration and in expiration is increased, the main arterial pressure is increased, but the capillary blood pressure in the lung tissue is so far decreased as actually to decrease the liability to pulmonary hæmorrhage

This modification of the capillary blood pressure can scarcely be other than beneficial to any inflammatory process in the lung tissue The danger, however, should not be overlooked that with fatty hearts, aneurismal dilatations, atheromatous arteries and denuded arteries lying in cavities of the lungs, the most serious or even fatal injury might be done by a careless or ill-advised use of the Cabinet This, however, is no argument against the value of the treatment, it is, in fact, a direct argument in favor of its power over lung expansion

The principal agents thus far used in the spray have been the bichloride of mercury, iodine, carbolic acid and phenyl "While the evidence," says Dr Williams, "is strongly presumptive that the use of these germicides diminished the quantity of bacilli in several instances and obliterated them in others, the opportunity for following out this line of inquiry has not furnished sufficient data to permit an unqualified statement" To kill bacteria is one thing, to kill germs is another, and all evidence seems to point to the fact that it is impossible to keep germs out of the body What then can inhalations do?

Several years ago, Prof Tyndall made some interesting studies on this subject, and discovered that although by a continuous boiling he could not sterilize solutions, he could sterilize them by many successive boilings Although he might not at once destroy the fully-developed bacteria, he could destroy their offspring while they were too young to produce a fresh generation It is true that this may be only a theory, but it is a theory which will I think stand the test of experience and it is the theory underlying the treatment by antiseptic inhalations

The materials which have been found most useful as antiseptic inhalations are not mere gases which are mingled with the inspired air and then pass out with it, but they are vapors of soluble bodies which are deposited upon lung tissue Upon every moist bronchial tube, upon the walls of cavities and around, if not in, congested areas the inhaled vapor is condensed *to render the soil barren for germ growth* "For if the difference between a soil fit and one unfit for bacterial growth is to be measured, for example, by the difference between the functional activity and resulting vital resistance of an upper and a lower lobe of the lung, surely it is not unreasonable to hope that by impregnating the pulmonary tissues with antiseptic material which we know renders them less fitted for the cultivation of bacilli, we may be able to make up the lacking resistance and so prevent the access of disease"[1]

For a further confirmation of the proposition that by discontinuous antiseptic inhalations bacilli can be made to disappear from the sputa, the reader is referred to a very interesting paper read by Dr V Y Bowditch before the Suffolk District Medical Society, Nov 11, 1885

The effect of these inhalations in the Cabinet upon the *cough* depends upon the lesion in the lung In nearly every case reported by Dr Williams, and in all of the cases that I have been privileged to see, the cough and expectoration have been much reduced, there has been an increase of appetite and of weight, a tendency to a more restful sleep and a reduction of the fever Indeed it can be safely claimed that where fever is due to the absorption of pus from a lung cavity accessible to the air, the introduction of an antiseptic will as certainly reduce the fever as will the washing of a uterus in puerperal septicæmia, or the cleansing of any suppurating wound The cases that have thus far been reported have certainly given proof of the possibilities of recovery from serious lung lesions Of three cases of unresolved pneumonia, Dr Williams reports all cured, of seven cases of primary infiltration, six cured and one improved, of nine cases of acute catarrhal phthisis, four cured and one improved, while of nine cases of chronic fibrous phthisis, eight showed marked improvement

The danger when looking at such a history of treatment is, that inconsiderate enthusiasm may prevent one from fairly weighing evidence, which must in all justness be impartially considered It is our duty, however, as conscientious and progressive physicians, to investigate the subject carefully and without prejudice, patiently developing what is good in the method, and gradually learning what is its proper place in the healing art

---

[1] Solomon G Smith M D British Medical Journal Feb 23 1884

Thus far its greatest value seems to have been in the treatment of *early stages of phthisis*, in *fibroid phthisis*, in *chronic bronchitis*, in *emphysematous conditions* of the lungs, and in the *consolidations resulting from pleurisy, empyema, and unresolved pneumonia* Upon the Continent of Europe, the applications of compressed air have proved of inestimable value in the treatment of *asthma*, and it is not improbable that similar successes may soon be recorded here To meet these various indications, an ingenious mechanism attached to the Cabinet permits the operator at will either to rarefy the air within the Cabinet to a given degree, or to compress it to a given degree, or alternately to rarefy and compress it synchronously with the respiratory act

Our only method of determining the merits of the treatment is by a careful study and a complete record of all cases I trust to be able soon to report some original investigations upon the subject, studying it in its relations to and effect upon the healthy organism as well as the diseased

194 West Brookline St , Boston, Mass

RUPTURE OF THE RECTUM, AND PROLAPSE OF THE SMALL INTESTINE[1]

BY S B LYON M D,

GOVERNMENT HOSPITAL FOR THE INSANE WASHINGTON D C

I desire to present some notes on an unusual case of rupture of the rectum, and protrusion of a loop of the small intestine through the opening in the wall, and from the anus

The patient was a woman of 50, suffering with melancholia of a very active type, accompanied with delusions largely relating to the pelvic organs, she often fancied herself pregnant, or being delivered, and her conversation, which was almost continuous during waking hours, was on subjects forbidden in polite society She had a remarkable talent for making remarks exceedingly embarrassing to both the physician and the nurses One result of her delusive ideas of her pregnant condition, was a disposition at times to assist nature by introducing her hand into her vagina or rectum, and pulling or working at those organs, so that a tendency to prolapsus of both uterus and rectum existed, and these conditions had been reduced more than once The disposition to interfere dangerously with herself made constant watchfulness and some restraint necessary

A few days since, when visiting the ward, the nurse called my attention to a mass of viscera which had descended from the anus, and an examination showed at once that it was not a question of a prolapsus of the rectum, such as had previously occurred, but that the protruding mass was made up of a part of the small intestine, and the appearance of omentum and the serous surface of the gut excluded a mere turning inside out Only a rupture of the large intestine and the protrusion through the opening thus made of the small gut, could explain the condition The rectum, with its internal and external sphincters, was in its normal condition, not even slightly prolapsed by the weight and tension of the protruding mass

Ordinary modes of reduction were attempted, but with no success, the weakened condition of the woman from shock, and long continued exhausting excitement, precluded surgical interference Within forty eight hours death resulted without any sthenic symptoms The following is Dr Blackburn's report of the autopsy

"Mrs ——, age 50 Chronic melancholia On opening the abdomen a peritonitis of the folds of intestine in the pelvic region was revealed The peritoneal surfaces in that region were agglutinated by recent lymph, and a moderate quantity of reddish serum, with floating lymph was contained in the cavity On further examination a rupture of the anterior wall of the rectum within the recto-uterine pouch (Douglas's) was discovered Through this opening a large loop of the ileum, with its mesentery, had passed No escape of fæces had occurred, as the intestine was adherent to the edges of the rupture The portion of the intestine protruded began about six inches from the ileocœcal valve, and was about eighteen inches in length The loop was discolored and covered with lymph Some strangulation had occurred, shown by the thickening of the intestine and the discoloration of the part Examination of the vagina and os uteri revealed an old laceration of the os, and erosion of the posterior lip of the cervix "

The only mention I have seen of a similar condition is under the head of hernia, as "Hedrocele," in Gross's "Surgery," where he quotes Dr Uhde, of Brunswick, but no sack existing in the present case, it is doubtful if it is described under "Hedrocele "

MEDICAL PROGRESS.

MATERIA MEDICA AND THERAPEUTICS

The Hippurates of Lime and of Lithium — Dr V Poulet considers the hippurate of lime as the best preparation of calcareous salts for use in the system, and as especially useful in affections of the urinary passages, in affections of the liver, in diseases of the skin and mucous membrane, where they are dependent upon functional vices of the liver or upon lymphatism, in a great number of diseases of the alimentary canal, both of the stomach and intestine, in diabetes, and in chronic rheumatism, gout, etc

In urinary affections, the subacute cystitis of the neck of the bladder yields satisfactorily to its use, with relief to the frequent desire to urinate, pain on urinating, etc In certain cases where the urine manifests an abnormal alkaline reaction it becomes promptly acid again by the use of this drug In every case, there is a return to the normal limpidity and a cessation of the presence of the mucous globules It is quite as useful in urinary lithiasis from whatever cause, phosphaturia, uraturia, or oxaluria If the theory of the liver as the principal seat of the formation of uric acid, as a product of the disassimilation of the hepatic tissue, be correct, it follows that this drug, acting, as it does, through the hepatic gland, should be especially indicated.

---

[1] Read before the Medical Society of the District of Columbia October 14 1885

In diseases of the liver it gives marked results, either by relief or cure, even when the symptoms are pronounced and decided, having progressed to the production of ascites and œdema of the lower extremities. This applies to subacute hepatitis, chronic hepatitis, catarrhal icterus, hypertrophic and even atrophic cirrhosis in its early stages, biliary lithiasis, certain functional disorders occasioned by hydatid cysts of the liver etc. Surgery is benefited by this drug in traumatic or other urinary fistulæ, by modifying the composition of the urine.

In skin diseases, exclusive of those of parasitic origin, whether they come from the tuberculo scrofulous, or the neuropathic diathesis, the hippurate of lime is useful, exercising an alterative and tonic action. The arthritides Dr. Poulet considers symptomatic of an affection of the liver—such are pemphigus, and certain urticarias. "With the hippurate of lime, *no more red noses*. In America, where this affection is so common and is the despair of a part of the population, there is no doubt but that this remedy will soon be appreciated at its proper value."

In dyspepsia and diabetes this agent seems to be especially applicable to inflammatory gastric or intestinal dyspepsias with flatulence and reflex phenomena commonly called sympathetic. It relieves the constipation very satisfactorily. In diabetes, as a simple solution, and with the aid of the ordinary dietetic regimen, it acts very beneficially.

In affections of the mucous membrane, it is admirably adapted to all cases of gastro intestinal acidity, to ulcer of the stomach, chronic enteritis, muguet, and to tympanites. In the diarrhœa of infants it produces remarkable results. In chronic rheumatism, gout, difficult dentition, etc., it is useful with phosphate of soda.

The hippurate of lithium, alone or combined with the hippurate of lime, serves admirably in the treatment of gout. The attacks of gout are lessened in intensity and frequency. The tophus is redissolved. The nodosities and chronic engorgements, in both the larger and smaller articulations, gradually disappear.—*Bulletin Gen. de Therapeutique*, Aug. 30, 1885.

SULPHATE OF IRON IN CATARRH OF THE STOMACH IN YOUNG CHILDREN.—DR. ROTH says, in the *Pester Med.-Chir. Presse*, that one of the most important symptoms of catarrh of the stomach is the acidity of the contents of the stomach and bowels. The vomited matters have an acrid odor, and take on a greenish color; it is the same with the contents of the intestine. The parts soiled by these matters, the anus and scrotum, become red. The green color has been wrongfully attributed to the use of calomel. Absorbents have been used to destroy the acids with tonics to combat the catarrh. But too often these remedies have not responded properly. In such cases Roth uses sulphate of iron, which exerts a multiple and favorable action. It is especially a disinfectant. The stools change their color and lose their bad odor. As an astringent, the sulphate of iron contracts the turgid mucous membrane and coagulates the albuminoid substances; to have its proper effect, the use of the drug should be continued for several days. Dr. Roth uses the following formula:

Sulphate of iron, 0.1 gramme, mucilage of gum arabic and simple syrup, each 20 grammes; a coffee spoonful every two hours.—*Revue Mensuelle des Maladies de l'Enfance*, Sept., 1885.

ANATOMY AND PHYSIOLOGY

INFLUENCE OF PILOCARPINE AND ATROPINE ON THE SECRETION OF SWEAT.—The Paris correspondent of the *British Medical Journal*, Aug. 1, 1885, states that M. JUDIC, in a communication on the influence of pilocarpine and atropine on perspiration, made before the Biological Society, stated that if a dog's spinal cord be cut between the eighth and ninth dorsal vertebræ, its paws become the seat of intense perspiration. This appears to prove that there is a spinal nerve centre, which regulates the secretion of sweat. After dividing the sciatic nerve, if the peripheral end be stimulated, the corresponding paw perspires profusely. The sciatic nerve is simply a transmitting agent; it establishes communication between the medullary and the peripheral nerve centres. If, instead of stimulating the peripheral end of the sciatic, the nerve be left intact, and pilocarpine be administered to the animal, the perspiration is equally intense. If the nerve be cut and pilocarpine administered, the perspiration is normal. It may, therefore, be concluded that pilocarpine does not act on the glandular elements, but on the nervous system. Atropine produces the opposite effect to that provoked by pilocarpine.

MEDICINE

ACUTE ENCEPHALITIS OF CHILDREN.—The diffuse inflammatory affections of the cerebral tissue in children are enveloped in mystery, even if they ever occur. STRUMPELL has investigated what he calls the acute encephalitis of children. He endeavors to assimilate infantile cerebral paralysis to the well-known spinal paralysis of children. Acute poliencephalitis is the counterpart of acute poliomyelitis. These affections attack the gray matter of the nervous system, on the one hand it is the cerebral cortex, on the other the anterior horns of the spinal cord. In autopsies of children dying with cerebral paralysis it is not uncommon to find cicatricial wasting of the motor areas of the cerebral cortex. These morbid conditions are sometimes congenital, when they are regarded, probably on insufficient grounds, as simple atrophy. Strumpell believes that many of the cases originate in acute inflammation of the gray matter. According to him, clinical experience further proves the analogy between the acute poliencephalitis and acute poliomyelitis. Strumpell has observed twenty-four cases of acute poliencephalitis at ages varying between four weeks and six years. Seven cases were under one year of age; eight occurred in the second year, and four in the third of life. The causes are said to be obscure, but the progress of the cases is characteristic The onset is rapid, with the general symptoms of fever and vomiting something akin to meningitis Convulsions are observed on both sides of the body, and consciousness is lost The initial stages may last only a few days, or may be prolonged for two weeks, or even two months The author believes that death may happen in the first period, though he has no proof of this occurrence in his own experience There is but little gradation between the febrile period and the second stage, or paralytic period The general condition of the child rapidly ameliorates, and then the hemiplegia remains as a sort of surprise for the physician The hemiplegia is more marked in the upper than the lower limb, it rarely attacks the face, but strabismus has been observed several times Sometimes there is monoplegia only Anæsthesia is not observed The palsy does not remain at its worst, and though there is no rapid wasting of muscle, yet the limbs are arrested in growth As a further contrast to the spinal palsy, the muscles, even if there be no definite contracture, are yet in a state of tension Strumpell does not omit to mention the occurrence of symptomatic epilepsy, first unilateral, then general He speaks also of the development of athetosis There can be no misgivings as to the nature of the disease that Strumpell writes about, and even his description of its clinical aspects is not complete But the chief interest to neurologists is the pathology of this so called infantile hemiplegia We think it not unlikely that some cases of this disease may own the same pathology as poliomyelitis acuta *A priori*, we can think of no reason why this should not be the case But the pathogeny of acute poliomyelitis is unsettled, though there can be no question that in some cases the signs of inflammation are too marked to be overlooked A theory which requires careful consideration, and which might be tested whenever possible in the dead house, is that of thrombosis of the veins of the cerebral cortex, this view has been put forward by Gowers, in his "Diagnosis of Diseases of the Brain"—*Lancet*, Aug 29, 1885

THE DIAZOREACTION IN PHTHISIS —In reply to the objections raised to the diazobenzoic reaction, GRUNDRIES has made a large number of experiments on sixty-four tuberculous subjects He first prepared two solutions

SOLUTION A

Sulphanilic Acid	grm	1
Nitric Acid	"	10
Distilled Water	"	1,000

SOLUTION B

Nitrite of Soda	grm	1
Distilled Water	"	200

To solution A he adds 25 grms of solution B He then mixes equal parts of this and urine in a test tube, adds a few drops of ammonia, and sets it aside for twenty-four hours The intensity of the reaction is measured by the color of the precipitate In feeble reactions the precipitate is a clear green, in strong reactions a dark green Sometimes there is a yolk of egg color, which seems to have no special significance The superposed liquid has a reddish tint, the intensity of which varies with the color of the precipitate

An intense reaction is a sign of advanced tuberculosis, when it occurs constantly When it is absent the situation is more favorable These tests are easily made, and are of great prognostic value —*Zeits fur klin Medicin*, Bd VIII, Hft 4

SURGERY

SUGAR-DRESSINGS —DR F FISCHER gives a long and interesting summary of the results of this mode of treatment in the surgical clinic at Strasburg, as used by Prof Lucke and himself Finding the sublimate solution to be unsuitable in many cases, in the beginning of the winter semester of 1883–4, they tried a mixture of naphthalin and sugar in equal parts, and then a mixture of iodoform and sugar (one part iodoform to ten parts of sugar) The naphthalin-sugar was soon abandoned, the iodoform sugar was confined in its use to such cases as presented tubercular changes The use of sugar in preventing decay and suppuration in wounds is old, Galen refers to it, and Dr Fischer quotes various authorities since his time, he refers, among others, to Packard (*Am Journ Med Sc*, 1865) as using it in hospital gangrene In his experiments he has kept hydrocele fluid eighteen days, preserved by a solution of sugar, blood serum eight days Animal infusions that are alkaline in reaction become acid in four or five days, on standing Mixed with a thick syrup they can be kept a month without showing bacteria or vegetable mould This fact led to the conclusion that in an acid secretion bacteria could not live in any number, and consequently, that the use of sugar with the dressings, after the disinfection of wounds by the sublimate solution, would prevent any disturbance by foreign substances

To apply the sugar to wounds, small bags of muslin were made, the muslin being prepared by boiling and soaking in soda solutions, and washed until it no longer gave an alkaline reaction, the sugar being placed in them, they were laid upon the wounds and covered with wood-wool All the ordinary antiseptic precautions were taken, however, in performing operations and treating wounds, and before the sugar was applied the sublimate solution was used to cleanse the wound The layer of sugar over the wound was made at least two cm thick, then came gutta-percha paper, which with the muslin and wood-wool completed the dressing This sugar dressing remained eight to fourteen days undisturbed If the secretion was moderate, the sugar retained it, if greater, it formed with it a crust, was the secretion excessive, new sugar sacks were placed in position and retained by folds of muslin

The healing process in most cases went on without fever, a record of 38° C was rarely reached A temperature of 38° C was a sign for the renewing of the dressing, even when the patient felt well Granulations spring up quickly under the sugar sacks, and the wound preserves a healthy appearance The number of cases so treated and recorded reach 202, of these five died One was a case of erysipelas after amputation of the breast, a second died of hæmorrhagic nephritis, a third, amputatio in studio septico, died in a few hours after the operation, the fourth and fifth with pulmonary phthisis. In extensive suppurations, such as phlegmons, empyema, etc., this dressing is not suitable, as the sugar is dissolved by the profuse secretion and causes much discomfort to the patients. Sugar acts admirably as a deodorizer in unhealthy wounds, ulcers of the leg, ichorous carcinoma, etc., after thorough disinfection with the sublimate solution, the sugar being laid on thickly; after two or three dressings the odor is entirely removed.

He recommends the sugar dressing, that is so easily applied, particularly for all wounds closed by nature, for these healing by first intention, for ulcers in order to stimulate healthy granulations, and for all slight wounds, particularly of the hand and superficial contusions.—*Deutsche Zeitschr. für Chir.*, Bd. xxii. Hft. 3 and 4.

THE SURGERY OF THE LUNGS.—DR. TRUC, in a thesis discussing the present status of surgery of the lungs, shows that pneumotomy partial or total, practised antiseptically, is generally well endured by the different animals and is compatible with life.

In general applied to the treatment of tuberculosis, the operation has hitherto given deplorable results, while as an operation for secondary cancer of the lung, circumscribed and superficial, it seems useful and little dangerous.

The operation may be further advantageous:

1. In certain abscesses producing serious complications, their location being well established.
2. In circumscribed abscesses producing infection, their location being exactly determined.
3. In localized severe putrid bronchitis.
4. In rare forms of limited tuberculosis, represented by an insolated superficial cavity, the septic products of which occasion septic symptoms which directly endanger the life of the patient.
5. In large hydatid cysts, which are not spontaneously relieved, nor lead to the ordinary methods of cure.
6. In cases of intrapulmonary foreign bodies which have resisted ordinary means for their removal and produce inflammatory symptoms or destruction of the parenchyma, their locality being known with precision.

Dr. Truc further concludes that exploratory puncture, carefully made, is generally harmless, and frequently of great diagnostic value.

For the operation the thermocautery is to be preferred to the bistoury, as being less dangerous, and costal resection should be generally performed as a convenient means of opening large cavities, and for facilitating cure. As adjuvants to the operation, antiseptic irrigations seem always useful and frequently necessary. Uncombined with pneumotomy, antiseptic injections seem but little beneficial.

As to intraparenchymatous in tubercular diseases, when carefully made with fluids but slightly irritating and in moderate doses, they are well endured, and while they neither aggravate the local condition nor arrest the progress of the pulmonary lesions, they in some cases seem to ameliorate the symptoms of the patient. For making such injections, the axillary and subclavian regions are to be selected as being most accessible and least dangerous.—*Revue de Thera.*, Oct. 15, 1885.—*Med. News*, Nov. 7, 1885.

FRACTURE OF THE SPINE: RECOVERY.—At the meeting of the Border Counties Branch, on October 1st, DR. CRERAR reported the case of a man, aged 27 years, who was working six years ago as a miner in a coal pit, and in a stooping position, after the manner of colliers, when a heavy piece of "metal" fell from the roof and struck him with great force on the back. He was carried home carefully, and Dr. Crerar first saw him lying on his back upon the floor. He had complete power over the lower limbs; but, on examining his spine, it was found to be fractured and partially dislocated, the injuries involving the eleventh and twelfth dorsal and the first three lumbar vertebræ. The injuries were very distinct. Dr. Crerar expected paralysis of the parts below the injury in a few hours, but, as the cord seemed to have escaped, a hope was expressed that the man might possibly recover. He lay on his back about eight months, nearly losing his penis at one time by sloughing, but he made a good recovery. The seat of the injuries was very apparent on October 1st, 1885, a good deal of callus having been thrown out. He had married since the accident, and had become the father of a family. He was strong and well, working every day as a coal miner without any inconvenience. Seeing that so few who had sustained fracture and dislocation of the spine recovered, this case appeared to be one of considerable interest.—*British Med. Journ.*, Oct. 17, 1885.

OBSTETRICS AND GYNECOLOGY

UNCONTROLLABLE VOMITING DURING PREGNANCY, CURED BY FEEDING THROUGH AN ŒSOPHAGEAL TUBE.—BRUNNICHE, *Hospitals Tidende*, 1885, No. 29, reports the case of an unmarried woman with scanty, irregular menstruation, who, suffering severe gastric disturbance for two months, entered a hospital, and, under diagnosis of ulcer of the stomach, the possibility of pregnancy was denied. Soon after admission, vomiting became so severe that all food was rejected and inanition was threatened. Alimentation by means of an œsophageal tube was now resorted to, and broth, followed by cold water, before the withdrawal of the tube, was first fed to the patient without causing vomiting. Milk was then administered, and no vomiting being produced, was followed by bouillon, etc., with like favorable result. After five days an attempt to swallow food caused reappearance of nausea and vomiting, and the use of the tube was again necessitated. Pregnancy was now readily diagnosticated. In three weeks the use of the tube was dispensed with, and the woman discharged cured.

A significant fact in connection with the case is that it was only necessary to introduce the tube into the entrance of the œsophagus, showing that the location of the sensitive region, irritation of which occasioned the vomiting, was situated higher up in the digestive tract than the stomach.—*Centralbl. für Gynak.*, Oct. 10, 1885.—*Med. News*, Nov. 7, 1885.

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE
PER ANNUM IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO, ILLINOIS

SATURDAY NOVEMBER 14, 1885

MEDICAL STUDIES AND MENTAL TRAINING

In a recent number of the *British Medical Journal* are two "Introductory Addresses," delivered at the opening of medical schools in Great Britain In themselves the addresses are worth reading and worthy of thought By the strong contrast of views, however, they are still more apt to hold the attention and provoke comment In both, the subject treated of with greater or less detail was the kind of studies most profitable for youths to pursue, and especially such as intended to make medicine their profession

In one of these addresses MR JONATHAN HUTCHINSON speaks plainly his own conviction that radical reform is needed in the choice of studies He would make a distinction between the kinds of knowledge to be acquired by the people in general, and by those who have special aptitudes The latter may follow with advantage almost exclusively a special line of study The majority, not thus endowed with special aptitudes, should choose to learn that kind of knowledge which will be most fruitful to them, and should acquire as much general information, even at the expense of its being somewhat superficial, as possible A choice in the kind of knowledge to be acquired must be made, he urges, because there is a limit to the powers of memory And when this limit is reached, if an attempt be made to acquire more it is only accomplished by crowding out and losing something already learned Upon this limitation of the human mind he dwells particularly, and urges on that account that the knowledge that we acquire should be carefully chosen, and often, if we do not wish to lose something already learned, we must abstain from taking up new and wholly independent subjects He thinks that far too much time is devoted to the study of Greek and Latin, that "it would be a great gain if the dead languages were forthwith honorably buried "

In reply to points usually urged in favor of these languages, namely, that they tend especially to develop the mind, that they are keys to invaluable literatures, and that they are necessary for a sound comprehension of our own language, especially the terms of science, he says "The study of language for the most part is a pure matter of rote memory, and encumbers rather than strengthens the mind," that there are now abundant means for acquiring a perfect knowledge of ancient life, history, and literature without first learning the languages of the time In regard to the last argument in their favor, he regrets its reality, but believes "a good vocabulary is sufficient It is not necessary to study grammatical construction in detail " Even the modern languages he would not have acquired until they are needed for actual use by the individual He looks upon them as burdens to the memory, and unnecessary burdens often All language he regards as a means to an end, and not an end in itself, a means for the acquisition of knowledge He would have all who do not possess special aptitudes for language and the studies dependent upon them, devote their time to the more fruitful studies of nature and man How much better it is to understand the causes of some of the great events of French history rather than to know ever so well the irregular verbs of the language "The one kind of knowledge is living, is in itself fruitful in incentives to sympathy, to action, and to vigor in social life, the other is, for the most part, dead and abortive "

In strong contrast to these views are those expressed by PROFESSOR E O SCHAEFER, of University College, London The preparation which he looks upon as best for the man intending to follow a liberal profession, is the ' classical" course so long looked upon as essential for the education of an English gentleman For one intending to pursue medicine as a profession, he would have this course supplemented by a year or so devoted to the study of physics, chemistry, and biology, before the more purely medical branches are taken up

The great difficulty in all past and in most present educational methods, is that all minds are put in the same mould, with the expectation that similar results or finished products will result We might as well attempt to cast a statue in gold, silver, bronze, iron, and lead, and expect the mould to turn out exactly the same product with each metal As with metals, so with men's minds, there are the greatest differences in quality and character, which adapts each to form different products, and if each is properly fashioned and utilized for the production of that for which it is best adapted, we will obtain the best results The study of the classics should not be demanded of any man who wishes to be looked upon as educated, any more than a study of science is demanded of all A good, a liberal education does not consist in the study of any one prescribed course What is needed by every well educated English speaking person, whether he intends to study medicine or not, is a good, a full, a complete acquaintance with the English language As much time should be spent in practically teaching the distinctions between English words, in pointing out shades of meaning, as is now spent in pointing out the ability of Greek and Latin authors to make these distinctions in their own language

For those contemplating the study of medicine there is desirable, besides a training in study from books, in reading and acquiring knowledge by reading (and this is all important), a training in observing and in the methods of scientific reasoning Science, when properly taught, inculcates the most scrupulous exactness, veracity and attention to details, its methods of reasoning are those used most in everyday life And almost every problem presented to the physician for his solution must be solved according to these methods Undoubtedly the ideal physician should be a man of such breadth of mind that he can grasp, and such industry and ability that he can acquire much more than simply a knowledge of his profession He should be conversant with literatures and with sciences For the education of such a man a training in the classics is as necessary as a training in science But how few there are of this quality and character, and why should all then be put through the mould best adapted to him If they were, many years would be wasted, hard study and close application would not be indulged in, and therefore much mental training lost that might have been acquired had the studies rather been adapted to the tastes, talents and necessities of each student

A thorough understanding of the nature of English words is needed by every English-speaking person Therefore this should be demanded But for the training of the mind, the memory, judgment, power to reason, those subjects should be chosen which will easily enlist the attention of the student, and thus help him to make the application necessary for the mental training As means to an end, languages will be acquired with pleasure as they are needed For the study of medicine there should be required of the applicant at the college door a good English education, and evidences of a well-trained mind, whether the training has been obtained upon classical models or not In addition, as soon as a sufficient number of schools exist in this country suitably equipped for teaching physics, chemistry and general biology these should also be required before the study of the purely medical branches is undertaken

---

"SUCCESSFUL CASES OF PULMONARY PHTHISIS" REPORTED BY DR W H GEDDINGS, OF AIKEN, S C

In the *New York Medical Record*, of October 3, and 10, 1885, DR W H GEDDINGS makes a report of thirty eight cases of pulmonary consumption which are of such interest that we propose to consider them rather critically They are cited as examples of recovery, and are indeed a most gratifying proof of the fact that pulmonary phthisis is not necessarily a fatal disease Yet, we think that were one inclined to be captious, he would scarcely regard all of the cases as recovered However, the decision on this point depends upon the length of time during which there is entire absence of symptoms, which is considered sufficient to constitute recovery, as distinguished from quiescence Dr Geddings seems to regard in this light a cessation of all symptoms for two years, since that was the shortest time noted in any of his cases We have no desire to be hypercritical in this matter, yet it seems to us it would be a little more prudent to pronounce the disease quiescent when no more than two or three years have elapsed since the disappearance of the symptoms

A careful analysis of these thirty eight cases shows twelve in which less than five years has elapsed On the other hand, in the majority of these twelve cases, the probability of permanent arrest is greatly strengthened by the fact that careful physical exploration of the chest revealed more or less diminution in the area of consolidation While not inclined to assert dogmatically that a lapse of five years is requisite to the establishment of a case of pulmonary tuberculosis as cured, yet we would suggest that in forming a prognosis one should not lose sight of the frequency with which improvement occurs in consumption, even to a temporary disappearance of all symptoms Furthermore, that very hopefulness and inclination to view their disease lightly to which Dr Geddings refers may lead patients to overlook and omit to mention some trifling symptom which to the physician would be of ominous importance Dr Geddings undoubtedly employed every means to gain accurate statements from those patients who had passed from under his personal observation, and if, perchance, unintentionally the individuals gave too much of the *couleur de rose* to their condition, he is in no wise to be held accountable. The remaining twenty-six cases are strong and gratifying, particularly cases III and VIII, in which the disease has been arrested ten and fifteen years respectively.

Let us briefly consider Dr. Geddings' cases from the standpoint of those features of the disease which Jaccoud regards as conditions of its curability. These conditions have already been stated at length in an editorial article in the issue of this JOURNAL of July 4, 1885. According to Jaccoud, the probability of a cure is directly proportionate to the duration and extent of the disease. The thirty-eight under consideration had manifested the first symptoms but a few months, as a rule, before coming under Dr. Geddings' observation, although in some the commencement dated back two years or more. And in all but three, the disease was unilateral, for the most part confined to the apex. With the exception of three cases in which cavities were demonstrable, the disease had not progressed to the stage of softening, and therefore presented the conditions most favorable for recovery. The three cases in which there were cavities demonstrated the correctness of Jaccoud's view, that even in the third stage, pulmonary phthisis is susceptible of arrest. Although all presented more or less fever and night sweats, in only thirteen was the temperature stated as having reached 100° F. or over, while the sweating disappeared with considerable readiness, conditions justly regarded by Jaccoud as favorable to curability. Copious expectoration was noted in only two instances, and in all the quantity of *sputa* was diminished after the patient came under observation.

Only a small percentage of the cases was complicated by diarrhœa or other digestive disorders, a circumstance also mentioned by the distinguished Frenchman as favorable. In a few there was a marked degree of emaciation, although in all there had been a loss of weight. The rapidity with which this was regained in several instances was truly astonishing. There was a striking absence of serous inflammations and other complicating diseases, with the exception of pulmonary hæmorrhages. Hæmoptysis or hæmorrhage was recorded in eighteen out of the thirty-eight cases. The very large percentage in which this occurred, as Dr. Geddings justly remarks, seems to show that so far from proving deleterious, hæmorrhage, when not copious enough to dangerously exhaust the patient, actually preserves against inflammatory extension of the disease within the lungs, a further coincidence with the opinion of Jaccoud.

Erethism or high nervo-vascular excitability, considered by Jaccoud as an unfavorable condition, does not appear to have been present in Dr. Geddings' cases, unless the rapid pulse rate be an indication of its existence. In every instance the pulse was fast out of all proportion to the degree of the fever, remaining rapid in some instances even after the temperature had returned to normal. Acceleration of the pulse, however, is so uniformly present in tuberculosis, that A. Flint mentions it as one of the corroborative signs of the disease in its inception. In nine cases the fact of heredity was noted, and although it may have been a prominent factor in the causation of others, it is fair to presume that the most of them may be classed under the category of acquired phthisis, which is the form of the disease considered by Jaccoud to be most amenable to treatment. If the constitutional strength be sufficient to resist the first invasion, the disease is liable to break out again at any time, owing to the inherited diathesis. In this form of tuberculosis, therefore, the cure is but relative.

Altogether, the report of the cases under consideration is instructive and encouraging, the more so, since, so far as can be judged from the necessarily rather meagre details, the cases appear to fall under the category of those which, according to Jaccoud, are appropriately sent to stations of high altitude, of 3,900 feet or more, in Switzerland, and Aiken has a far lower elevation. It would be highly desirable if so skilful an observer as Dr. Geddings would study the cases which resort to Aiken with reference to determining and reporting the exact condition of those which are benefited by residence there. With definite knowledge as to the conditions on the part of the patient compatible with cure, either relative or absolute, it is certainly most desirable that as medical advisers we should also have precise, scientific data as to the climatic conditions, within our own land, that favor recovery in each case.

"HOW TO BUILD UP A MEDICAL SOCIETY."

Such is the title of a timely editorial article in a recent number of the *Maryland Medical Journal*, of which our only regret is that it was not longer. Our contemporary recommends that local societies should follow the good example of the Baltimore Academy of Medicine, which offers a prize for the best paper read before the Academy during the year. In addition to this, it is recommended that accurate reports of the proceedings of a society be made when they are to be sent to various journals in the country for publication

Of the two suggestions we regard the latter as the more important A reward for the best paper is undoubtedly a stimulus to writing good papers But the experience of our school days should remind us that comparatively few compete for honors and rewards The fact that a paper, or a discussion of a paper, is to be published, is, we think, a greater incentive to careful writing and speaking than a reward Be this as it may, the two things are by no means incompatible—the reward may be offered, and the "publication committee" appointed at the same time It is reasonable to infer that the offer of a prize will bring out at least half a dozen excellent papers in a year in a society with two or three hundred members But why not, at the same time, reward the member who gives the best discussion of a paper? In many cases the discussion is of more value than the paper itself Americans are said to be ready speakers as a rule If the saying be applied to the members of medical societies, however, it falls far short of the truth Very many—the majority—of the printed discussions of papers, read before medical societies, are exhilarating to the last degree when compared with the memory of the verbal delivery As a matter of fact, very few physicians are ready speakers, as shown by the hopeless floundering at annual banquets, and the usual distressing *finale* One of the best debaters, best lecturers, and most pleasing man to listen to when on his feet, is an eminent American gynæcologist who was once accused of having taken lessons in elocution for the purpose of filling his lecture room It is interesting to know that he always lectures to packed benches, while his accuser can usually count his hearers without trouble

It may be said that every man cannot be an orator But medical societies have no need of orators, they need men who can make short, sensible, pointed comments on papers—and give place to others, they need men who can remember what they have already said, and what others have said, and who will not waste time in wearisome repetitions They also need men who can appreciate the salient points of a subject or paper, and who can bring them out without linguistic ambiguity or ungrammatical attempts at flowery speech There are such men, and the number is just sufficient to show what results might be expected if there were more Still further, it must be evident that a speaker cannot interest his hearers unless he has a good idea of what he wishes to say—and a clear idea of his subject Nevertheless, we not infrequently see men arise, to discuss a paper, having neither of these qualifications It is not at all discreditable to preserve a judicious silence under these circumstances It is not too much to say that a member of a society should invariably prepare his discussion of a paper—so far as possible—before going to the meeting of the society, unless he has the subject and his remarks literally at his tongue's end Many who in private conversation show no symptoms of aphasia or other disorders of speech, seem suddenly attacked with amnesic aphasia, ischophonia and bad grammar when speaking in public Their tongues are not sufficiently loose, while their statements are too much so, sentences and conclusions are alike *non sequitur*, they are extremely prodigal in the use of ill chosen words, and exhibit a marked tendency to wander off into a labyrinth of side-issues

In this connection we may aptly quote from the recent report of the Editor of the Chicago Gynecological Society to the Society "Remarks made in the heat of discussion, are not always characterized by accuracy of statement Ideas are not always expressed *clearly*, *distinctly* and *adequately* Notions are frequently *obscure* and *confused* Then there exists in the minds of many medical gentlemen a supreme contempt for the science of the formal or necessary laws of thought The American medical mind evinces a natural fondness for the universal proposition, affirmative or negative Major premise, minor premise, and conclusion, are frequently in utter defiance of the laws of syllogism Fallacies—logical and material—exceed, in number and degree, those described by such systematic writers as Sir William Hamilton and John Stuart Mill The 'accidence and syntax' of English grammar is not always observed, and Dr Campbell's canons are sometimes held in derision " This is certainly not a flattering picture, yet it is not overdrawn The men who would not blush to see their extemporaneous remarks printed as spoken are few, and in the few must be included some who would not recognize the errors even in print

What are the remedies for these evils? 1 There is a prophylactic remedy which can be directly applied only by the medical schools—the insistance upon a proper preliminary education for the study of medicine, which should include *English*, even to the exclusion of the cut-and-dried classical education 2 Each medical society, which sends a report of its proceedings to the journals, should have a competent editor and publication committtee, whose duties should be (a) to judge whether a paper has sufficient merit to be read in the society, thereby cutting off worthless papers Some seem to have an idea that the road to practice and reputation is smoothed and leveled by a large number of "papers" They have one for every alternate meeting of the local society, and their only regret is that the society does not meet every evening, (b) to send out official reports of each meeting, and to twist the discussions into plain English when possible (when not possible to omit them), (c) to send out abstracts or *resumes* of the papers to be read, in order that the discussions may be prepared previous to the meeting, as far as possible, and thus be more interesting and valuable

---

One point more Every physician should consider it his duty to belong to at least one medical society, and his second duty is to attend the meeting Very many physicians seem to regard membership in a medical society as something accidental or incidental to professional life, rather than as a duty which each one owes to himself and his profession For example, of the forty-three or four hundred regular physicians in Illinois, there are not two thousand who are members of medical societies This is certainly a very bad showing for members of a "learned profession" But the same is true of almost every State in the Union From one county in Illinois, with twenty-four regular physicians, we learn that "there is no medical society in this county The profession is divided" The "divided profession" should remember that a society is for the good of the whole, as well as for the benefit of individual members

---

We have received bulletins from the National Board of Health, containing an abstract from consular and other reports concerning the prevalence and progress of yellow fever, smallpox and cholera in Canada, Mexico, Cuba, the West Indies, Venezuela, England, Brazil, France, Spain, Italy, Russia, India, Ceylon, Japan and the United States From March 4 to September 28, the deaths from cholera in Spain were 98,929 in a total of 267,689 cases, or 36 9 per cent In Colombo, Ceylon, there were twenty-two cases and twelve deaths from cholera between August 22 and September 12 For the week ending October 22 there were twenty-five cases of yellow fever in Havana, and twelve deaths

---

Professional Vacancy —By the recent death of Professor George Hunert, A M, M D, the chair of Theory and Practice of Medicine in the Medical Department of Wooster University, Cleveland, Ohio, is made vacant

SOCIETY PROCEEDINGS

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

Stated Meeting, October 7, 1885

The President, W W Johnston, M D, in the Chair

Dr T C Smith read a paper on

THE UTILITY OF DRY DRESSINGS

(See page 534)

Dr S S Adams said he thought Dr Smith's treatment of eczema was admirable in some cases In many, however, it would be difficult to keep the powder on the patient Dr Smith should first use a poultice in order to remove the crusts If he puts powder on the crusts and then more powder, and keeps piling on the powder, he will soon have crusts like those of eczema impetigonoides Dr Adams thought the first step in treatment should be the shaving of the head in such a manner as to remove the crusts Then if the doctor so desired he might apply his powder The speaker, however, thought it better to use ointments In his cases eczema had promptly yielded to ointments properly applied He generally used the white precipitate, with cosmoline, or vaseline The trouble usually consists in the difficulty of overcoming the whims and prejudices of both children and parents In the treatment of intertrigo podicis he used calamine and oxide of zinc in rose water As for varicose ulcers, probably rest and bandages did as much for Dr Smith's cases as his powder Dr Adams doubted if there was any special efficacy in treating nipples with dry dressings

Dr Frederich was glad Dr Smith had introduced the subject of dry dressings The speaker thought powders were of much advantage in the treatment of the wet stage of eczema All scabs, however, should be removed by softening with oil or poultices In many cases starch alone has proved efficacious after all manner of ointments had failed In the treatment of wounds iodoform stands pre-eminent

Dr J M Toner said that in the treatment of acute eczema the black wash had proved very efficacious in his hands When there is danger of salivation from long continuance, he uses lime-water alone He instanced a severe case which came under his observation some months ago, where great relief was afforded by such treatment

Dr C E Hagner said Dr Toner's patient was a woman 45 or 50 years old, who had been under the speaker's care The eruption came on suddenly and covered her face and arms It was also on other parts of the body On the second day her head was dreadfully swollen and her face presented the appearance of one suffering from erysipelas Dr Ford Thompson was called in consultation Lead water was used, and anodynes, quinine and Fowler's solution were given internally One morning, however, Dr Hagner got a note stating that his services were no longer required, and he afterwards learned that Dr Toner had cured the patient

Dr **Toner** said he had cured many other patients with the same simple remedy In the treatment of sores in the nasal passage, he put the patient flat on his back, and warming some of the black wash in a a spoon, introduced it gently into the nares

Dr **Berman** suggested that if the doctor made the patient say "*he*" when the fluid reached the pharynx, none would enter the stomach

The President knew of no disease more difficult to treat than eczema It had, indeed, become almost a reproach to the profession The purpose of all treatment is to make a new skin The disease is located in the papillary layer of the skin There is hyperæmia of the blood-vessels, and a constant migration of white corpuscles, which results in an enormous manufacture of epithelium No treatment will avail until these vessels are made to contract The smearing of ointments or the dusting of powders will not produce this effect The water treatment, which makes a pulp of the skin, removes not only the dead epithelium but also the young epithelium, and reduces the skin to a likeness to mucous membrane It softens the cuticle and keeps it softened When the eczema affects the hands and face the water treatment is still more difficult of application But by the use of masks much may be accomplished Strange to say, in many cases water seems to act as a poison, and increases the hyperæmia This is remarkable, as all cases are the same histologically The speaker thought in all cases constitutional treatment should be given, and every patient put in the best possible physical condition Special attention should be paid to the digestion, both primary and secondary, and by these means many patients, particularly children, will be relieved Teething infants will often suffer from an eczema which will disappear when dentition is completed

Dr **Frederich** said, in regard to the water treatment, that Hebra had constructed a water-bed, in which he kept his patient's body constantly submerged in ever changing water If the water is found not to agree with him, he is taken out and covered thoroughly with starch When the face and beard are affected the emplastrum vasel plumbicum is applied, and the patient's face covered with a mask, the dressing being removed every twenty four or forty eight hours

Dr **Schaeffer** said that ointments served a good purpose by excluding the air, even if they were not beneficial in any other way

Dr **Hagner** said eczema was a catarrhal condition of the skin, and like every other catarrh required sedative or stimulating treatment, according to circumstances No one remedy will cure all cases, and no inflexible rule of treatment can be given

Dr **S S Adams** said the cases which proved so obstinate and which were said to have been treated by so many physicians, were usually not properly treated at all The water treatments he considered difficult of application, and expensive

Dr **Johnston** acknowledged the difficulties of treatment by water The doctor, too, has often to contend against the unwillingness of the mother or nurse to carry out fully the directions given

Dr **Smith**, in closing the debate, said he had reference to the moist stage of eczema when he spoke of using dry dressings It is a mistake to suppose that the powder will confine the pus It will force its way through the dressing or lift up the crust He doubted if Dr Adams could shave some of the scalps he had seen He had treated sore nipples very successfully with dry dressings He related a case where the patient, a cook, was severely scalded by hot soup The application of dry dressings quickly relieved the patient, and in a short time he discharged the woman entirely cured with the exception of one or two places near the axilla

Dr **Hagner** said, in reference to the last case mentioned by Dr Smith, that he had been called to see her and had been compelled to poultice and remove one or two large scabs from the breast, and after the use of an ointment the woman was finally cured

Dr **Busey** asked Dr Smith if he sprinkled the powder over the entire surface or simply around the edges

Dr **Smith** replied that it was only necessary to put it where there was a moist surface

THE AMERICAN ACADEMY OF MEDICINE

Ninth Annual Session, held in New York City, October 28 and 29

(Concluded from page 525)

Thursday, October 29—Second Day

The Academy was called to order at ten o'clock

A resolution expressing the sympathy of the Academy with Dr H P Farnham, in his painful illness, was offered by Dr H O Marcy, and adopted

PRELIMINARY EDUCATION FOR MEDICAL STUDENTS

The following resolution was adopted

Resolved, That a committee of three be appointed by the President, to report at the next annual meeting, instructed to prepare a statement of the best preliminary education for medical students, and also a statement of the minimum attainments which medical schools should require of students before admitting them to the study of medicine

It was also resolved to appoint a committee of two whose duty it shall be to report the requirements for a preliminary education of the various medical colleges in the United States and in Canada

The following were elected

OFFICERS FOR THE ENSUING YEAR

President—Dr R Stansbury Sutton, of Pittsburg, Pa

Vice-Presidents—Drs Lewis P Bush, of Delaware, S J Jones, of Illinois, R L Sibbett, of Pennsylvania, and F H Gerish, of Maine

Secretary and *Treasurer*—Dr R J Dunglison, of Philadelphia, Pa

Assistant Secretary—Dr Charles McIntire, of Easton, Pa

Pittsburg was selected as the next place of meeting, time, the third Tuesday in September, 1886

DR. THOMAS J. TURNER, Medical Director U. S. N., read a paper on

MEDICAL EVIDENCE.

The *raison d'être* of the paper had its origin in the writer's duty in connection with the Naval Retiring Board. The positions of the medical members of the Board are that of an ordinary witness, that of an expert witness, that of a concurrent judge of both the facts and the law, but with the execution of the verdict the Board has no authority whatever. In the first instance the medical officer makes a physical diagnosis, in the second place he makes a rational diagnosis, based upon subjective phenomena, combining these, he arrived at a conclusion. On questions of science, skill, art, and the like, persons instructed on such subject-matters, known in ordinary language as experts, are permitted, from the necessities of the case, to give "matters of opinion" in evidence, and as to the necessity which permits the introduction of such opinions, each tribunal determines for itself at the time. Herein the expert differs from the ordinary witness who testifies as to "matters of fact." The boundary line where ordinary testimony ends and expert testimony begins is not always well defined.

As regards opinions on medical questions, any one, at present, may be permitted to testify, the question of the special amount of knowledge being left to the jurors to determine. It follows from this that there is no evidence which varies so immensely as so called expert evidence. It has been decided that a medical opinion may be received as evidence if it is based upon study without practice, or upon practice without study, and it has been ruled that it is not absolutely necessary that one should have studied or practiced medicine.

The opinions of medical men are admitted in courts, upon the condition of the human race thus: Is or was a certain person sick, upon the nature and cause of the disease, the cause of death, the cause and effect of an injury, the effect of medicine or of a particular treatment, the likelihood of recovery, the mental condition of the person, and upon the examination of the party whose condition is under inquiry.

It was the speaker's opinion that the term expert testimony was somewhat misleading, and he preferred the term "opinion evidence" as used by *Best* as preferable, for opinions may be admitted in evidence by those who could not be classed as experts. The test of the admissibility of opinion evidence seemed to the writer to be this: Has the expert witness any peculiar knowledge or experience not common to the world which renders his opinion, founded upon such knowledge or experience upon the subject-matter under inquiry, of value to the court in determining the truth of the matters at issue? The degree of credence given to opinion evidence should be founded upon the professional skill, the quickness of perception, the powers of discernment, the aptitude, the acquirements and the education, as well as the experience and observation of the expert in the matters upon which his special expert knowledge arises.

REPORT ON LAWS REGULATING THE PRACTICE OF MEDICINE IN THE UNITED STATES AND CANADA,

by RICHARD J. DUNGLISON, M. D., of Philadelphia, and HENRY O. MARCY, M. D., of Boston, was read by Dr. R. J. Dunglison.

He said that so little change has taken place within the last twelve months with reference to legislative restriction of the practice of medicine, that your committee might in a few brief sentences dismiss the subject with the statement of the actual work accomplished in this direction. The honest efforts of medical men and of others during the past year to accomplish creditable results in the States for the repression of quackery have been unabating, but in several cases, disappointment has been the only issue of their labor. Indiana and North Carolina are the only States in which any alteration in existing laws has been made. Your committee entered into correspondence with medical gentlemen in the different States with regard to the working of laws for the regulation of the practice of medicine, and their replies are submitted. The following is a synopsis:

From New York it was reported that the act of 1884 had not been effective in excluding from the profession grossly incompetent and uneducated men.

In Massachusetts there is no satisfactory law.

In Pennsylvania, the registration act is executed about as well as any law of the kind could be without an executive head. It has stopped the non graduated class from practicing.

From Michigan, it is reported that the present law is defective.

In Tennessee, there is no law regulating the practice of medicine.

In Ohio, the only law is one passed ten or fifteen years ago, requiring a diploma or a certificate from a chartered medical school. Several bills for regulating the practice of medicine have been proposed, but none have been adopted.

Wisconsin has adopted no law for the regulation of the practice of medicine.

Kentucky requires a diploma or a certificate from a State Examining Board. This law is working well.

Dakota last winter passed an act establishing a Territorial Board of Health, the function of which is to grant licenses to practice medicine and surgery in the Territory. There are, however, several difficulties in the satisfactory enforcement of this law.

Texas is practically without any law upon this subject.

In North Carolina, an act has recently been passed making it a misdemeanor punishable by fine or imprisonment, or both, to practice medicine in North Carolina without a license from a board of examiners elected by the State Medical Society. The results of this law have so far been satisfactory.

In New Jersey, the registration law has proven of little service.

Nebraska has a registration. While its results are not evident, yet it seems to be preparing the way for more effective action.

Iowa has no law regulating the practice of medicine.

Two years ago, Virginia passed a law establishing a State Board of Examiners This is working satisfactorily

Maine has no law on this subject In New Hampshire, the law regulating the practice of medicine has not accomplished very marked results

In Maryland, the law works very badly

In closing, Dr Dunglison said "From this sketch of medical legislation, the inference is fairly deducible that the legislation upon the subject of medical practice is not yet placed upon a sufficiently firm foundation to gratify the advocates of restrictive enactments, and that the obstacles to such healthful results are still operative, but not insurmountable"

DR BENJAMIN LEE, of Philadelphia, read a paper on

HEALTH OFFICERS ANCIENT AND MODERN

The important position assigned to hygiene and State medicine during the past decade is an evidence at once of the advanced stage of civilization and of the dense and rapidly increasing population It also indicates that long occupancy of the land by successive generations has at length overtaxed the regenerative and self purifying energies of the earth, and that extraordinary methods have become necessary

Reference was then made to the honors bestowed on the officers of public health in ancient Rome, and the high esteem in which they were held To this was largely attributed the excellent sanitary condition of that city

The second portion of the paper was occupied with a consideration of the organization of boards of health The first point made was that in selecting the material for boards of health, politics, in the bad American sense of the term, should be rigidly excluded Where it is possible to avoid it the members should not be elected by the people, especially is this the case in large cities

Secondly —Boards of health should be composed chiefly of physicians, but at least one member should be a man eminent among his fellows for prudence and judgment in trade and commerce, for doctors are, proverbially, bad business men

Thirdly —As it is desirable that there should be harmony of action and of sentiment between the municipal government and the board of health, there should be a representative of one on the other

Fourthly It is essential for the practical working of the Board that it shall employ a paid agent who shall devote as much time as is necessary to inspection and investigation of the sanitary condition of the locality, and carry into execution the orders of the Board

Finally, every member of the Board should receive a fair and even generous compensation for his labor

DR S N NELSON, of New York, read a paper on

MICRO-ORGANISMS AND THEIR RELATION TO DISEASE

Dr Nelson began by saying that the importance of the subject, already much discussed, was the only apology offered for presenting it That these minute organisms make up what they lack in size by the interest they are causing in the scientific world That great numbers of observers are at work on both Continents in the solution of the germ theory of disease Their history is related to that of spontaneous generation, to that of the fermentations, to the pathogeny and therapeutics of a great number of virulent and contagious affections, and in a more general manner to all the unknown, which, notwithstanding the efforts of modern science, still surrounds the origin of life and its preservation The bacteria belong to the vegetable kingdom and are the lowest of organisms, being merely cells of a globular, oblong or cylindrical form, reproducing themselves partly by spores and by transverse division The best authorities now adopt the simple classification into (a) bacilli, or the rod forms, and (b) micrococci, or the round forms The first observer who recognized them was Leuenhoeck, as early as 1675 Their study has advanced with the improvement of the microscope, until now many forms are only seen by the best lenses, aided by special condensors The more delicate and exact methods of the most recent observers with regard to their nature, show that there are many varieties of them, each of which has its own conditions of growth, and varies in its susceptibility to different temperatures and chemical reagents Apparent identity of form does not necessarily indicate identity of nature They may be cultivated in both solid and liquid nutrient media

The theory of a causal relation between bactria and diseased processes has recently received a wide acceptation In some diseases this relation is demonstrated, while in others it is presumed on the ground that bacteria are found in the blood and diseased products It is not only necessary that the germs should be isolated and grown in pure cultures, but by inoculation the disease should be produced in healthy men or animals with a reproduction of the bacteria Reference was then made to the various diseases that have been studied from this standpoint, and the present status of our knowledge was remarked concerning tuberculosis, cholera, variola, scarlatina, measles, diphtheria, erysipelas, etc Dr Nelson related some of his own experience in cultures of the micro organisms of many of these diseases, with which he has made many thousands experiments in the last five years, both at home and in Germany, under the supervision of Prof Koch in his laboratory in Berlin

DR ERNEST W CUSHING, of Boston, read some

OBSERVATIONS ON THE RELATION OF BACTERIA TO CERTAIN PUERPERAL INFLAMMATIONS

These observations were based on the results of examinations of the bodies of such women as died from these maladies at the general hospital at Vienna last spring He called attention to the great difference between the customs and rules governing the obstetric assistants and students in Berlin and in Vienna In the former city, every precaution is taken to avoid not only direct infection, but also any possible carrying of germs in the hair or clothing, as if bacteria were freely present in the air In Vienna, although the possibility of so finding them is admitted in theory, yet in practice the assistants and students are allowed to be present at autopsies Obstetric operations and laparotomies are performed before the whole class, without spray, and the chief assistants give operative courses on the cadaver every afternoon, relying for safety on washing, bathing, and change of clothing   Practically, sepsis arising in the hospital is very rare, and the results obtained by avoiding direct infection through the fingers and instruments, were regarded by the speaker as an argument in favor of the view that puerperal fever is not an entity, the poison of which is carried about in the air and enters the system through the lungs, etc , but that such fevers are the result of the invasion and multiplication of bacteria, arising from infection of the uterus or abraded vagina, as a rule directly from hands, instruments or application

Discussing the results obtained by the examinations above mentioned, the reader stated that the most frequent cause of infection was the strepto coccus, the next the straphylo coccus, with which is frequently associated the bacillus pyogenes fœtibus   The first occurs in chains not distinguishable from those of erysipelas, the cocci usually lying in pairs, each pair representing a link   The staphylo cocci occur in bunches like those of grapes   One or the other of the above were found in all acute cases examined, and were present in the uterine or iliac veins   In pelvic abscesses they were found in the lungs and joints, and in fact wherever metastatic abscesses occurred   Microscopic preparations of the above and three specimen cases were described   Finally puerperal inflammations were compared to infected wounds   The powers of the system to resist, fence out and kill the invading bacteria when the latter are not continually reinforced, were emphasized, and an active hopefulness was advised in regard to treatment, which, to be successful, should be analagous to that of surgical wounds, *i e*, prompt removal of decomposing matter, evacuation of pus, cleansing and disinfective douches and drainage

Dr R Stansbury Sutton said that while there was no question as to the success achieved by the use of antiseptics in general surgery, yet in abdominal surgery the best results so far had been obtained by strict attention to cleanliness, without the use of any antiseptic agencies   He agreed with Dr Cushing that when the poison entered the abdominal cavity in laparotomy, or into the vagina or uterus in puerperal cases, the germs are not carried by the atmosphere, but by the hands, the forceps, ligature, or instruments   As far as abdominal surgery was concerned, he thought that all chemical agents could be discarded, but cleanliness should not be lost sight of   He then referred to the injurious effects which had at times resulted from the absorption of such agents through the peritoneum

Dr Henry O Marcy related a case bearing on the introduction of antiseptics into the peritoneal cavity   It was that of a child four years of age, whose abdomen was filled with pus, in which the streptococcus was found   The pus was evacuated and the peritoneal cavity thoroughly washed out with bichloride of mercury solution   The patient recovered without a bad symptom

Dr Edward Jackson, of Philadelphia, read a paper on

MEDICAL LICENSES AND MEDICAL HONORS

A comparison was made between the requirements of the medical colleges of this country when first organized and the requirements of to day, and gradual lowering of the standard with the corresponding decrease in the honor conferred, was noted   While the population had increased twenty times, the number of graduates had increased five hundred times   Part of this increase is due to the fact that men who formerly practiced without a degree, now attend colleges and receive the degree

In 1881 the medical diploma was put to a new use, and became a license to practice   The inefficiency of the registry law, as well as the lessened honor which attached to the medical degree, was shown by the fact that in fifteen hundred registrations only forty-eight were destitute of the doctor's degree, and these belonged to the poorest order of irregular practitioners

The speaker thought it doubtful if any system of State license to purchase a certain calling should be looked on with favor   If adopted, it must be removed from all possibility of lowering competition, and surrounded by every guarantee of honest enforcement which disinterested examiners and full publicity can give

A paper entitled *The Physician and his Patient*, by Dr J D Kelly, of Utica, N Y, and one by Dr Lewis P Bush, of Wilmington, Del, on *The Physicians of Delaware in the Eighteenth Century*, were read by title

The President-elect was then introduced, and made a brief speech

The Academy then adjourned

MASSACHUSETTS MEDICAL SOCIETY—SUFFOLK DISTRICT

SECTION FOR CLINICAL MEDICINE, PATHOLOGY AND HYGIENE

Stated Meeting, October 14, 1885

The Chairman, R P Edes, M D,
in the Chair

Dr Morton Prince, stated that the title of his paper at the last meeting of the section should be amended so as to read "Friedreich's Disease"

ELECTION OF CHAIRMAN

The chairman announced that the first business to come before the section was the election of chairman for the ensuing year   A ballot was accordingly taken which resulted in the election of Dr F I Knight as Chairman of the Section

Dr Philip Coombs Knapp exhibited a patient with

PSEUDO HYPERTROPHIC MUSCULAR PARALYSIS

The patient, a boy of 6, was born in Boston, of German parentage   He was sent to the Boston City Hospital September 21st, by Dr Broughton, of Jamaica Plain, from whom, and from the boy's parents the following history was obtained

Family History   A full history of his father's family was not obtained; on his mother's side two cases of phthisis were reported, but no evidence of any neurotic history could be obtained. His parents are healthy. He himself is the youngest of eight children, the rest of whom are well. Four other children died in infancy of "water on the brain," one also having cholera infantum. The patient was a very feeble child, too weak to nurse, and had to be brought up on the bottle. During his first year he had diarrhœa much of the time, and seemed very delicate. When he was a year old, he had whooping-cough, attended with severe and frequent convulsions; he had convulsions at intervals for two months, once having seven in one night. After that he recovered, grew stronger, and has seemed healthy ever since, except for his present trouble, and for an illness of two days when he was 2 years old, "which seemed like water on the brain." When he began to walk, it was noticed that his left leg gave out at times, and he would sometimes fall. His legs were very fat, much fatter proportionally than his thighs, but at present his mother thinks the contrast is not so marked.

About a year ago, without any signs of illness, his parents noticed that he had more difficulty in walking. The trouble came on very slowly and gradually. He could not walk as well, and when out with the other children it was noticed that he could not run, and that a very slight push would knock him down. If he walked much he had a tired feeling in his legs, but he never had any pains in them, nor any peculiar sensations. The family for some time have laughed at him for "sticking his belly out" as he walks and stands. He has not been able to go up stairs well; when he does so, he pulls himself by the banisters or takes hold of his knees, having much difficulty in getting up. He puts the left foot first, they say, in going up stairs, and the right in coming down, the right leg seeming weaker. He never has headache, and sleeps well nights. He is quick witted, good natured and always happy; he answers questions readily, without any impairment of articulation, and seems more than ordinarily intelligent. He has not yet, been to school, partly from his difficulty in locomotion, and partly for fear that the larger boys will knock him down and hurt him. He has never had any serious cough, nor any dyspnœa or palpitation. He has a good appetite, eats everything, and has no trouble from indigestion; his bowels are regular. He has no difficulty with micturition.

Present Condition.—The child is of medium size, fairly developed, not very well nourished. The skin is pale and translucent, the subcutaneous veins are quite apparent. Their is no erruption or marbling of the skin. The head is rather large and square. The pupils are of medium size and react well to light; the eyes were examined by Dr. Wadsworth and the optic discs were pronounced normal. The eyes, face lips and tongue move naturally. The tongue was clean. Examination of the chest was negative. There was no impairment of tactile sensation. There were no signs of vaso motar disturbance in the skin, which showed no special difference of temperature to the hand in various parts. There was no ataxia in the movements of the hands. The patellar reflex was absent and there was no ankle clonus; plantar, abdominal, and epigastric reflexes present. No tenderness over the spine or nerve trunks.

There was no very great hypertrophy of any group of muscles. The facial muscles showed no marked atrophy or enlargement, and he could move them without difficulty; the expression of the face, however, was very peculiar, the eyebrows were elevated, the eyes staring and prominent, the mouth often a little open, and the lines of the face were not marked, and there was but little play of expression. His father, however, had noticed no change in this respect. The muscular development of the upper part of the body was rather poor. The arms were small, but there was no atrophy or hypertrophy that would strike the eye. The latissimus dorsi and pectorals were poorly developed, yet corresponded fairly to the other muscles. The infra-spinatus muscle filled the infra spinous fossa completely but did not feel hard. The deltoid felt rather firmer than some of the other muscles, the triceps was of good size and decidedly harder than the biceps; the muscles of the fore arm were also firm. There was no atrophy of the thenar muscles. The glutei were unduly prominent. The thighs were small, the quadriceps felt flabby. The calves were large and very hard and firm. Although the calves were not unduly enlarged for a healthy boy of his years, they were much enlarged in proportion to the other muscles. Circumference of the thigh in the largest part 10 inches, of the calves 8⅝ inches.

The child stands with his feet well apart, his shoulders back, his abdomen very prominent, his arms semi flexed, abducted, and carried a little backward. His scapulæ stand out in a wing like fashion from the chest wall. A plumb-line dropped from the spinous processes between the scapulæ, clears the sacrum, but not the buttocks as he stands erect. His gait is decidedly waddling, especially when he runs. His grasp is not very strong, but it is fair for his years. His arms show no special loss of strength. When he stoops over to pick up anything, he has much difficulty in straightening up again, and usually helps himself by putting his hands on his knees and throwing his body back, although he does not climb up his thighs much, if any. When he is put on his back and told to get up, he first rolls over on his belly, then he lifts himself up on his hands, straightens his legs, walks up to his hands, then he gets hold of his knees, pushes himself up, and throws his body back in precisely the manner described by Gowers. He cannot bend his knees and rise up again, and, if he stands on one leg and a forcible attempt be made to bend the knee, he goes down in a heap. He also goes down suddenly when he attempts to sit. His favorite way of going up stairs is to creep up on his hands and knees; if told to walk up, he prefers to get hold of the banisters and pull himself along. If made to go up without taking hold of anything, he has very great difficulty, even with stairs of a very slight rise, and sometimes he requires help. He always puts his left foot up first and pushes himself up by his knees. If told to put the right foot first he has much more difficulty, and often fails entirely to get up He can rise up on his toes very well, even on one foot, and he can bring his heels squarely to the ground Dorsal flexion of the foot is not quite so complete as normal, but it is impossible to say whether it is due to a weakness of the flexor groups or to a slight contraction of the gastrocnemii

An electrical examination was made by the induced current, but it caused so much pain that a complete and careful examination was not made The deltoid, biceps and extensors of the arm react feebly to a tolerably strong current The gastrocnemii and glutei react to a painful current, the full strength of a Fleming and Talbot battery, freshly filled The tibialis anticus react very little, if at all, but the pain of the application made the child so restless that it was impossible to observe the reaction carefully The quadriceps showed absolutely no reaction to the strongest current

The boy has been given cod liver oil and syrup of the iodide of iron, and directed to come to the out-patient department three times a week to have faradism applied

Dr J J Putnam remarked that often in the earlier stages of this disease the muscles of the upper extremity appear to be enlarged, and firmer than usual, sometimes seeming to be actually hypertrophied The deltoid frequently presents the appearence of hypertrophy at this stage, and the muscles of facial expression are much more prominent than usual The facial expression sometimes undergoes a marked change from the change in volume of the affected muscles The gastrocnemii are often not weakened at first, but are actually stronger than normal The disease seems to consist at first in a variation of the developmental force and direction, rather than in an actual degenerative process located in the spinal cord

Dr Gowers has made many examinations of the nervous centres in this disease, but has not always succeeded in detecting pathological changes in these structures In one case he discovered a portion of muscular tissue within the spinal canal

Dr C F Folsom read an elaborate and very interesting paper upon

GENERAL PARALYSIS IN THE PRODROMAL PERIOD

The patient was a clergyman who had always been well until recently, when he is said to have been affected with intermittent fever for which he is still taking quinine It has been noticed that within the past year his disposition and character have undergone an unexplainable change, and that his sermons are quite rapidly deteriorating in excellence of thought, as well as in excellence of diction and purity of composition The patient is himself aware of a change in this direction, but considers it due to a lack of energy upon his part, claiming that he might now produce equally good discourses if he would but make the necessary effort He is, however, very well satisfied with his present sermons, but often preaches his old ones, as he considers them "too good to be lost" He is desirous of extending his usefulness, and has at times "exchanged" with other clergymen On a recent occasion he preached in a strange church and made a very favorable impression The congregation was accustomed to but one service on Sunday, but this clergyman thought that his sermons were so good, that he announced a second service, which he laughingly states was attended by *one* person He is not at all disturbed by any embarrassment of circumstances, but seems quite satisfied with whatever occurs He wrote to Dr Folsom making an appointment, which he found he could not keep, and sent a timely note asking for a change of appointment to some more convenient time Upon being asked to write a page of ordinary paper he was quite at a loss what to say, when he was asked to write the text of his sermon the day before, he was utterly unable to recall it He was equally unable to remember a clause or idea from the sermon, or anything connected with the services of that day Upon removing his garments for the purpose of a physical examination, it was observed that he wore two starched shirts, one outside the other When asked why he dressed thus, he said that the outer one was the clean one of the day before, and he put it on in order to prevent it from becoming crushed by being placed in his valise When asked why he did not lay the soiled shirt into the valise when he took the clean one out of it, he seemed to think that this would be a good idea, but he himself had not been able to think of any way, except to wear the one shirt outside the other He several times made the remark that his urine was scanty owing to some disease of the liver When it was suggested that the kidneys were the organs by which the urine was secreted, he seemed to be aware of his mistake and was amused that he should have made such an error He complains of ringing in the ears and some degree of pain in the head which he attributes to the quinine prescribed for his "malaria"

His handwriting has changed to a marked degree within two or three years, and now presents the tabetic character quite distinctly His present photograph by itself is not remarkable in any way, but compared with those of three and five years ago shows extensive changes in the expression, the facial outlines having become much less striking to atrophy of the muscular structures of the face, by which the countenance is changing in the direction of imbecility Speech is still fairly good, though when fatigued or confused, the utterance becomes very slow, and the patient is often unable to pronounce words of several syllables without repeated efforts Although a clock was within plain view, the patient would have missed his railway train had he not been reminded that it was time to go, upon which he made his arrangements in the most exemplary manner and left for his home After a period of complete rest, he was again seen, when the symptoms of nervous derangement had so far disappeared that the most searching examination was necessary to detect the signs of any degeneration of the nervous structures Only when the patient became somewhat fatigued did the signs of paralysis become evident

These early and faintly marked symptoms are more carefully recorded in this case, and special attention is directed to them from the fact that they represent to some degree the "prodromal stage" of general paralysis, a period in the history of the disease, which the physician is seldom able to observe, as the symptoms at this time do not usually attract the attention of the patient or his friends, and medical aid is first summoned at a much more advanced stage of the malady, when cerebral changes have already occurred, and the case is hopelessly incurable If anything in the way of treatment can be of any avail it must be employed in the earliest stages of the disease The diagnosis of general paralysis once established, our prognosis in all such cases is at present invariably and unalterably hopeless If any benefit is ever to be gained in this disease from therapeutic measures, it must come from treatment of its earliest stages before cerebral degeneration has occurred

DR JELLY stated that he could add very little to the complete description of this forlorn disease which had been given by Dr Folsom The early recognition of the disease, and the study of the family history and individual traits are of the utmost importance This was forcibly illustrated in a case coming under the speakers personal observation in which a wealthy and influential merchant had for two years been noticed to become gradually more and more erratic in business, and to make foolish and extravagant errors, and unaccountable mistakes He was adjudged to be in the commencing stage of general paralysis, the stage of insane grandeur, and the friends were advised to remove him from business and to secure for him repose and perfect relaxation

Before the nature and extent of the disease was appreciated by the patient's relatives, however, his entire fortune had been wasted, and when he was finally placed under medical care, his family were already in the depths of poverty The patient was not benefited by treatment, but the disease rapidly advanced from the exaltation of the first stage to a condition of permanent and hopeless dementia

DR J J PUTNAM said that while his own experience brings him in contact with comparatively few patients with general paralysis, yet he has been struck by the surprisingly large number of cases of this disease which have become known to him There is no doubt that many cases exist which are entirely unsuspected until some painful or unsuspected event directs special attention to the individual, when the disease is at once distinctly recognizable The statement of Dr Folsom, that in many true cases of the disease there is astonishingly little which can be discovered in the way of positive symptoms, is unfortunately true In many cases absolutely nothing can be detected, upon which to base a sound diagnosis, and doubtless, oftentimes normal traits of individual character are ranked as features of the disease

DR PUTNAM asked with how great a degree of certainty can many cases be diagnosticated?

DR FOLSOM replied that in many patients the symptoms of this grave disease are very obscure They may consist of three elements diminution of muscular power, diminution of mental vigor, and derangement of the vaso-motor functions in the slightest degree When notable changes in character and disposition occur, between the ages of forty and fifty, after the adult character of the individual may be supposed to have been firmly established, the indications are strongly in favor of general paralysis Symptoms often entirely disappear from observation for a period of many months, but again recur after some trivial cause, like loss of sleep or overwork A sudden change in character and disposition in a vigorous man, without other explanation, is almost invariably indicative of general paralysis

DR JELLY asked if the prognosis is always necessarily so bad as has been supposed?

DR FOLSOM replied that he had never seen a cure in any case There is no known record of cure in this disease The prognosis is entirely hopeless The therapeutics of this disease offers no encouragement at the present time The whole question of treatment is in a most unsettled and unsatisfactory condition The subject is in about the same condition as was that of pulmonary tuberculosis some fifty years ago Cases generally come under the observation of the physician at too late a period, when organic changes have already occurred in the brain, and degeneration of the nervous and muscular structures have already taken place At this stage no known method of treatment has ever been of the slightest avail

(*To be concluded*)

DOMESTIC CORRESPONDENCE

NEW YORK LETTER

(FROM OUR OWN CORRESPONDENT)

Surgical Practice in Bellevue Hospital—Wiring the Fractured Patella—A New Serre Naud—Charity Hospital Training School for Nurses—The Anti vaccination League—Cremation—A Circulating Library for the Blind

At the meeting of the Academy of Medicine, on October 15, the paper of the evening, which was a very satisfactory one, was by Dr Stephen Smith, on "The Comparative Results of Surgical Practice in Bellevue Hospital" He thought that there was perhaps no better place in which to test the progress of practical and operative surgery than the wards of this old institution, since it had within its walls and its immediate environments all the conditions that in modern times are regarded as unhealthful and unsanitary It was built, he said, between the years 1811 and 1816, on the made lands of East River, without drainage or adequate sewerage, and without regard to ventilation During nearly three quarters of a century the sluggish tides have ebbed and flowed through the sodden soil of its foundation, depositing far more filth than they have removed, and since its occupation it has been used as a prison and an almshouse, as well as a hospital Moreover, its wards have, from time to time, been crowded with patients suffering from all forms of contagious and infectious diseases, and it has been the common receptacle of typhus and typhoid fevers, small pox, puerperal fever, cholera, and yellow fever

Although many changes have been made in its interior, yet the great and most serious defects of location and construction have remained unaltered The surgeons of Bellevue, as Dr Smith rightly said, have always ranked among the best in the city, and as much of their practice in hospital has been public and clinical, it must be assumed that they have endeavored to the best of their ability to illustrate to their classes the highest type and best results of the science and art of surgery of their day And yet the practice of surgery in Bellevue Hospital has within the past few years undergone so complete a revolution that one of the older surgeons would scarcely realize that he was in the same hospital where he had practiced a decade ago "He would see with horror operations fearlessly performed that he had formerly regarded as without the pale of legitimate surgery He would witness procedures in the after treatment of operations which would seem to him to be fantastic, and even ludicrous His astonishment would be extreme on finding that the first week passed without fever, and that no change in the dressings had been made But perhaps the most remarkable feature of modern practice would be the rapid convalescence, and final complete recovery, without complication or exhaustion, of ordinary operations, which formerly gave so much trouble and anxiety"

Before the use of anæsthetics, the most important general principle governing the operator was celerity, but now, Dr Smith asserted, the one thought and purpose that occupies the mind of the surgeon is recovery without suppuration, and to this end all his preparations are made, and the entire procedure subordinated Having described the details by which this is accomplished in operations in general, he passed in review a number of special methods of treatment and operations, such as the treatment of compound fractures, amputations, excisions of the larger joints, the ligation of large arteries, and the treatment of cold abscesses He then went on to say that perhaps the most marked illustration of the great improvement in operative surgery in Bellevue may be found in the unvarying success which attends the treatment of simple fracture of the patella by wiring together the fragments "It was eminently fitting," said Dr Smith, "that this operation, so novel and startling as to be received with almost universal ridicule by older surgeons, should have first been proposed by the great apostle of antiseptic surgery By proposing and successfully executing this operation he expressed his faith in his teachings in form more emphatic and convincing than language could This procedure does, indeed, embody the very spirit and genius of the surgery of to day, viz boldness to audacity in the conception of an operation, and conservatism the most absolute in the method and means employed in executing it And yet this operation is now accepted as legitimate in Bellevue, and is of almost weekly occurrence in one or the other of its surgical divisions And no operation, so inherently dangerous when performed according to old methods, has ever proved more successful It has now been performed in more than a score of cases without an unfavorable result"

The paper concluded in the following words "In reviewing the surgical practice of Bellevue, it is not difficult to determine the essential feature of the present methods as compared with those of the past Cleanliness is the one great object sought to be attained in all operations Whatever may be the final conclusion of scientific students as to the cause of putrefaction in wounds, practically it is determined that the surgeon may, with the most absolute certainty, protect an ordinary open wound from suppuration To effect this object, he finds that he has simply to secure perfect cleanliness of the wound The agents now relied upon and found efficient are 1 Soap and water to external parts 2 Carbolic solutions for instruments 3 Bichloride solutions to all surfaces and tissues 4 Iodoform for external dressings We may summarize the conditions regarded as essential to success as follows *A clean operator, clean assistants, clean instruments, clean dressings*"

At the last meeting of the New York County Medical Association, held October 19, the principal paper of the evening, by Prof Frederic S Dennis, of Bellevue, was on the operation of opening the joint and wiring the fragments of bone together in fracture of the patella referred to in Dr Smith's paper At the outset he said that, while Sir Joseph Lister had recently revived this procedure under conditions which ensured for it a most brilliant future, it was not to be forgotten that it was of American origin, having originally been performed by Barton, of Philadelphia, and in this connection he paid a fitting tribute to the genius and skill of American surgeons in general Having stated that he desired in the communication to present all the arguments which had been adduced both for and against the operation in question, he went on to say that there were at the present day two classes of surgeons who represent professional opinion The first considered the operation perfectly justifiable, believing that when it was performed with proper antiseptic precautions, it was unattended with danger It was true that up to 1883, out of some forty-nine cases, there were two deaths, while in six instances it had been followed by suppuration and anchylosis, but since then the results have been materially better Out of more than fifty cases reported, there had been no death, and in only three, one of which was a compound fracture, had there been suppuration

The second class of surgeons referred to held that the operation was unjustifiable on account of the great risk involved in opening the joint, and claimed that equally good results could be obtained by the older methods of treatment Dr Dennis was fully convinced himself that the modern antiseptic operation was in every way preferable, and could, as a rule, offer the results of osseous union and a perfect joint, which every surgeon knew the difficulty of obtaining by any of the former methods Under proper restrictions, he believes it to be an ideal operation

One great reason why bony union was so rare when these methods were employed was, he thought, because the layer of tissues in front of the patella almost invariably gets in between the fragments, and he mentioned the following three arguments in favor of the newer and bolder treatment *First* The absence of danger to life and limb *Second* The superior results as regards the functions of the limb and the joint *Third* The greater rapidity of repair He then proceeded to adduce a considerable amount of clinical evidence in support of his assertions, among which he mentioned a case of compound fracture which had been under his own care The patient fell from a scaffold, fracturing the patella transversely, and the joint was found to be wide open and filled with blood Yet in a few weeks the man was walking about again with perfect ease, and at present the limb was just as good as ever, since he was able to dance, to climb a ladder, and to walk ten or fifteen miles In speaking of the rapidity of repair, Dr Dennis related another case of his own, in which the patient died six days after the operation from delirium tremens and Bright's disease, and yet, notwithstanding the short time that had elapsed, very firm bony union was found to have already occurred There was no callus thrown out, and the reparative process was altogether analogous to primary union in the soft parts The entirely unique specimen from this case was also presented The remarkable gain in time resulting from this operation is certainly a very important object, not only to the day laborer, but to the professional and business man

It was true, he said, that the Academy of Medicine in Ireland and the Société de Chirurgie had declared against the new operation, but he had no doubt whatever that the tide of professional opinion would soon turn in its favor The circumstances had been very much the same as regards abdominal section in surgery, in regard to which so complete a revolution of sentiment had occurred It had been claimed that the knee joint would be liable to the formation of osteophytes after this operation, but this was merely a fanciful objection Another objection put forth was that ramifying osteitis was likely to occur, but he had never seen any such result

Dr Dennis devoted the latter part of his paper to a discussion of the technique of the operation, and finally announced a number of conclusions, among which were the following

1 In compound fractures of the patella there is not the slightest doubt of the propriety of the operation

2 In recent and old fractures, under ordinary circumstances, and with the patient's consent, it is wholly justifiable

3 In debilitated patients, and those suffering from organic diseases, the operation should not be performed

4 It is not an operation which can be indiscriminately performed It should never be undertaken by the inexperienced, or by any one who has not the most perfect faith in the efficacy of antiseptic surgery

5 Success depends on the most strict observance of the minutest details of antiseptic procedure

6 Its results are far more satisfactory than those attending any other method of treatment

At the end of the paper, Dr Dennis presented a number of patients who had been cured or were in process of treatment, and among them was the case of compound fracture which he had narrated, as well as a similar one treated by Dr Fowler, of Brooklyn, which was the first of its kind in this country, and which, he said, marked an era in the progress of American surgery

Among those who took part in the discussion were Drs Fowler and Burge, of Brooklyn, and the latter remarked that up to this evening he thought he had brought the treatment of fracture of the patella up to a state of great perfection, but now he felt like a junior student He believed that he had actually learned more at this meeting than he could have done by a three months' sojourn in Europe

Afterwards Dr H M Biggs, of the Carnegie Laboratory, gave a demonstration of cultures of the micro organisms of osteo-myelitis, and Dr F Forné, a surgeon in the French Navy who is now stationed on one of the men of-war in New York harbor, presented a new instrument, a true *serre naud*, for tightening a knot continuously, which Dr Gouley pronounced the best device for the purpose which had ever been invented, believing that it would prove of especial value in ovariotomy

The ninth annual commencement of the training school for nurses of the Charity and Maternity Hospital, on Blackwell's Island, was held October 29th, in the amphitheatre of the Carnegie Laboratory There were fourteen graduates, and addresses were made by the Rev Dr Edward McGlynn, of St Stephen's Roman Catholic Church, ex-Mayor Wm H Wickham, and Dr F N Otis, of the visiting surgical staff of Charity Hospital The report of the school was read by Dr L L Seaman, Chief of Staff, who stated that since its organization, in 1875, it has had upon its roll 267 students, of whom 151 have been graduated At the conclusion of his report he said "I am proud to say among the nurses now may be found many ladies of culture and refinement, and the skill of the physician has been supplemented by the skill of the educated nurse The care and sympathy received by the patients promoted their recovery, while the presence among them of the pupils of the school so improved the moral tone of the institution that the cells for punishment were no longer necessary, and were removed The death-rate of the Hospital has steadily diminished since the introduction of the training school, as shown by the statistics of the past ten years It is now nearly sixty per cent less than before the establishment of the school, and while other causes have contributed to diminish the mortality, none has exercised so great an influence as the increased efficiency in nursing, due to the careful training of intelligent nurses" In the evening the ladies of the graduating class had a festive dinner at Charity Hospital

An adjourned meeting of the "Anti-Vaccination League" was held October 26th, at the house of Dr R A Gunn, the late Dean of the notorious exploded United States Eclectic Medical College, at which there were gathered at least a score of persons The illustrious Mr Henry Bergh presided, and delivered a harangue, in which he explained that the purpose of the meeting was to form a definite organization, to be duly incorporated under the State laws Under such an organization, he thought, could the public be fully aroused to the frightful evils of vaccination as in no other way Dr Gunn also made an address, in which he stated that members of the League held themselves in readiness to prove the fallacy of the theory of vaccination to the satisfaction of the public whenever its advocates or members of the Health Board would discuss it in open debate, and a committee was appointed to draw up articles of incorporation for what is to be known as the "American Anti-Vaccination Society" With the lessons of the Montreal epidemic staring it in the face, the public, for whose welfare these noble gentlemen are so solicitous, is hardly likely to flock to the standard of the new society in overwhelming numbers It is certainly a bad time to begin an enterprise of this kind at present

Dr John T Nagle, Deputy Register of Records of the Health Department, has given orders to the clerks having charge of the issuing of burial permits not to grant any permits for the removal of bodies from this city to the new Mount Olivet Crematory at Fresh Pond, Long Island, for cremation The order is based on the fact that the present Sanitary Code makes no provision for the cremation of human bodies, and that this is in reality a violation of the *Code* The authorities of the crematory will therefore be obliged to seek legal assistance in rescuing them from the unexpected dilemma in which they are placed

A very laudable enterprise has just been successfully inaugurated in the opening of a free circulating library for the blind There are said to be over a thousand blind persons in this city, and as the purchase of raised letter books is necessarily expensive, the library will be an incalculable blessing to many of them who have not the means to buy such works It is the first project of the kind ever undertaken in this country, and voluntary subscriptions are entirely relied upon for its support P B P

REDUCTION OF TEMPERATURE BY ICE-BAGS

To the Editor of the Journal

Sir —Stephan, of St Petersburg (see Journal September 26, 1885), is of opinion that the temperature in fever may be lowered by the application of ice bags over the super-clavicular region This effect is produced by bringing the cold in contact with the large superficial veins of the neck I have noticed that in some cases of pneumonia a sensation of intense heat is one of the most trying sensations from which the patient suffers In two of my cases much relief was afforded by the continuous application of the ice bag to the occipito-cervical region One of the patients told me "it was the only comfort he had" F A Burrall, M D

48 West 17th St , New York

STATE MEDICINE

PROVISION FOR THE INSANE IN TENNESSEE

During the last two years, Tennessee has been actively improving the accommodations for her insane The hospital at Nashville, under the care of the distinguished alienist, Dr John H Callender, has been overcrowded for several years A new asylum at Lyon's View, near Knoxville, in East Tennessee, is nearly completed, and is expected to be open for patients in December next The site is well selected, and the buildings have been constructed under the direction of Dr Michael Campbell, who has recently been elected Superintendent of the Institution Dr Campbell was with Dr Callender in the hospital at Nashville two years, and is well qualified to fill the place of Superintendent We learn from a recent copy of the *Nashville American*, that Dr C C Fite, of that city, has accepted the appointment of Assistant Superintendent in the new asylum at Lyon's View Dr Fite is not only well and favorably known to the profession in Tennessee, but throughout the Mississippi Valley, and will discharge the duties of his new position with ability and fidelity The State has also made an appropriation for another asylum in West Tennessee, and a Commission is now engaged in selecting the most appropriate location

HEALTH OF MICHIGAN FOR OCTOBER, 1885

Reports to the State Board of Health, at Lansing, by regular observers in different parts of the State, show that, for the month of October, 1885, compared with the preceding month, diphtheria had increased, and that diarrhœa, cholera morbus, dysentery and cholera infantum had decreased in prevalence Compared with the average for the month of October in the seven years from 1879–1885, remittent fever, intermittent fever, typho-malarial fever, diarrhœa, consumption of the lungs, typhoid fever, bronchitis, dysentery, and cholera morbus, were less prevalent in October, 1885

For the month of October, 1885, compared with the average of corresponding months for the seven years 1879–1885, the temperature was lower, the absolute humidity was less, the relative humidity was much more, and the day and the night ozone were more Including reports from regular observers and others, diphtheria was reported in fifty nine places within the State during the month, and measles in three places

ASSOCIATION ITEMS

INFORMATION OF IMPORTANCE TO ALL MEMBERS OF THE AMERICAN MEDICAL ASSOCIATION

Membership —Every one who attends an annual meeting of the Association as a delegate pays at that time five dollars, and thenceforward becomes a Permanent Member He continues as such as long as he remains in good standing in the body from which he was originally sent as a delegate As a Permanent Member, he must pay *Five Dollars Annually*, when notified by the Treasurer, whether he attends the meetings of the Association or not Payment of annual dues entitles him to receive the weekly Journal of the Association for one year

Members by Application are such as have not become Permanent Members in the manner above indicated, but apply to the Treasurer for membership, forwarding at the same time to him five dollars and the certificate of the President and Secretary of their State or local society, that they are in good standing in such society They pay five dollars annually thereafter, when notified by the Treasurer Members by application can join the Association at any time, and they receive regularly the weekly Journal

When Dues are Payable —The annual dues from Permanent Members are payable to the Treasurer at the time of the annual meeting of the Association, or immediately thereafter The payment entitles the member to receive the Journal for one year from the following July Payment for 1885, for example, entitles the member to the Journal from July, 1885, to June, 1886, inclusive

As some of the members have not yet forwarded *to the Treasurer their dues for 1885, they are urgently* requested to do so at an early day Having entered upon another year of membership, they are morally and legally responsible to the Association for the payment of their annual dues, having already received for three months of the new year—1885—the Journal of the Association

Subscriptions to the Journal, from those who are not members of the Association, should be forwarded to the office of publication, 65 Randolph Street, Chicago, and not to the Treasurer, but *all payments of annual dues must be forwarded to the Treasurer, Lock Box 1274, Philadelphia*

Deaths —When a member of the Association, who is in regular receipt of the Journal, dies, his family or other representatives are requested to inform the Treasurer at once of the fact

Payment of Dues for Previous Years —As a few members of the Association are still in arrears for payment of dues for 1883 and 1884, they are requested to forward at once to the Treasurer the amounts for which they are indebted to the Association

Transactions of the Association —These annual volumes, thirty-three in number, to 1882 inclusive, may still be obtained, with few exceptions, from the Treasurer, at reduced prices The Index to these volumes will be forwarded on receipt of *One Dollar* An opportunity is thus afforded to complete sets of these valuable publications, or to obtain important papers and works which are daily becoming scarce

Richard J Dunglison, M D , *Treasurer*
Lock Box 1274, Philadelphia, Pa

MISCELLANEOUS

American Public Health Association —Arrangements have been made with the Baltimore & Ohio R R to carry delegates and members of this Association, their families, and all others desiring to attend the annual meeting of the American Public Health Association, to be held at Washington, D C , commencing December 8th, 1885

In view of the fact that public interest, at the present time, is centering in epidemics, it is especially urged that members of different Boards of Health take part in this meeting, either in a body or by sending delegates, as it promises to be the largest and most interesting meeting of the kind ever held in this country It is, perhaps, unnecessary to call your attention to the importance of attendance, when taking into consideration the fact that the coming season gives promise of being one of epidemics, and that it is necessary "in time of peace to prepare for war," and in the discussion of preventive measures, by those who have spent years in their study and practical workings, reach in the shortest time the best methods

Delegates and others desiring to attend the meeting, paying the limited fare ($17 00), via the Baltimore & Ohio lines, will be returned at one third the limited fare ($5 85), making a rate of $22 85 Chicago to Washington and return Certificates for the return tickets will be signed by Irving A Watson, Secretary, at Washington

It is hoped that all will avail themselves of the above low rates to attend the meeting

Those who contemplate going will advise T H Dearborn, General Northwestern Passenger Agent Baltimore & Ohio Railroad, 83 Clark Street, Chicago, who will assign them such sleeping car accommodations as they may desire State date of leaving Chicago

---

William Benjamin Carpenter, LL D , F R S, the eminent English physiologist, died a few days ago from the effects of burns caused by the upsetting of a lamp while he was taking a vapor bath for rheumatism He was born in 1812 He was graduated in 1839 from the medical school in the University of Edinburg, after having passed through University College, London Prior to 1839 he published a work "On the Unity of Function in Organized Beings," and subsequently a number of other works on physiology and the use of the microscope Dr Carpenter at one time was Professor of Medical Jurisprudence in University College, London

---

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM OCTOBER 31 1885 TO NOVEMBER 6 1885

Maj Ely McClellan, Surgeon, leave of absence granted in orders Cav Depot, Jefferson Bks , Mo , Oct 30, is extended seven days (S O 254, A G O , Nov 4, 1885)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING NOVEMBER 7 1885

Medical Director David Kindleberger, granted leave of absence to June 30, 1886, with permission to leave the United States

Asst Surgeon F W F Wieber, to remain on receiving ship "Vermont" until May 15, 1886

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE WEEK ENDED NOVEMBER 7 1885

Urquhart, F M Passed Asst Surgeon, upon the closure of Cape Charles Quarantine Station, to proceed to Norfolk, Va , for duty Nov 5, 1885

Battle, K P , Asst Surgeon, resignation accepted, as tendered, by the Secretary of the Treasury, to take effect Nov 25, 1885 Nov 3, 1885

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol V | Chicago, November 21, 1885 | No 21

ORIGINAL ARTICLES

HYDROBROMIC ETHER OR BROMIDE OF ETHYL AS AN ANÆSTHETIC

BY LAURENCE TURNBULL, M D, PH G,
OF PHILADELPHIA

The hydrobromic ether or bromide of ethyl was discovered by Serullas in 1827, but received no special attention until Dr Thomas Nunnelly, of Leeds, made some experiments with it on animals in 1849 Dr Nunnelly brought the subject again before the profession, by a paper read at the meeting of the British Medical Association in 1865, in which, in conjunction with another anæsthetic, he says he had employed the one or the other in all the principal operations at the Leed's General Eye and Ear Infirmary This was at the time when chloroform held such complete sway in England, that no importance was attached to Nunnelly's experience or experiments, and he had no one to follow him in using it, and we hear no more of it until 1876, when some experiments were made with it in France, by Rabuteau, on the lower animals, but evidently without a knowledge of the fact that this had been done previously in England by Nunnelly

I then took the agent up without the knowledge of the experiments of Dr Nunnelly, of England, and had it made in Philadelphia by Professor Remington, and with two friends began experimenting in September, 1877, using it first on myself, and then upon my patients After satisfying myself as to its efficiency and safety as an anæsthetic, I laid the subject before the Pennsylvania State Medical Society in 1878, and a record of ten cases, with my conclusions, which were published in the volume of their Transactions for that year In August, 1879, I brought it before the British Medical Association at Cork, and in September of the same year, I presented a report of one hundred cases before the International Medical Congress at Amsterdam (to which I was a delegate from the American Medical Association), up to March, 1879, when the second edition of my work on anæsthetics went to press I had published a report of twenty five successful cases in quite a variety of surgical operations, and had not only employed it at my daily ear clinic, but also in the Jefferson Medical College Hospital, and administered it in April, 1879, to a patient of Dr Samuel W Gross, at the public clinic, when he (Dr Gross) removed a hyoid cyst in front of the neck of a child Dr R J Levis, who was at this clinic, for the first time saw it employed, and became much interested in its use

I thus compelled chemists to make it, by producing a demand for it, and gave them, through Dr Green, a good formula free from phosphorous, I interested surgeons all over the country to try it, and especially the surgeons of this city, by bringing it in every way before their attention Subsequently the whole number of cases in which it has been employed by myself and friends up to June, 1880, will number some eight or nine hundred

I can but feel disappointed that two deaths, not produced by it, should have been associated with it,[1] as such accidents will be employed by those having a prejudice against the ether, to condemm it on theoretical grounds[2] It is my firm conviction that although in several instances recently the use of this anæsthetic has been attended with persistent vomiting, in the hundreds of cases in which it has been employed, chiefly in Philadelphia, in not one single instance has it caused cerebral trouble, or any of the symptoms produced by the action of free bromine, which are as follows When dogs are confined in an atmosphere of bromine vapor, they suffer a profuse secretion from the eyes, nostrils, and fauces, with cough, hoarseness, dyspnœa I have experimented upon frogs, cats, dogs, rabbits and various other animals by subjecting them to an atmosphere highly charged with the vapor of hydrobromic ether, and in no instance was there the slightest effects as described above

PHILADELPHIA, June 2, 1880

"Deputy Coroner Beam made an investigation of the circumstances, as reported in *The Times* nearly a week ago, of the death of William Linderman, 18 years old of Schuylkill county, while upon the operating table at the Jefferson College Hospital on

---

[1] The bromide of ethyl as an anæsthetic by Marion Sims M D, LL D New York Medical Record April 3 1880

[2] In the discussion following the report of the fatal case by Dr Sims to the New York Medical Society Dr Squibb undertook to account for the poisonous effects of bromide of ethyl by assuming it to be a loosely molecular article easily decomposed that thus its administration is prone to be followed by an impregnation of the system with bromine and that if it remained as bromide of ethyl in the system it might not be harmful This theory has been shown to be based on insufficient grounds In the first place Prof Jungk has shown bromide is not a loosely molecular article," that in fact it is a very stable salt (for a salt it really is) and very difficult of decomposition much more difficult than chloroform In the second place the assumption that anæsthesia is due to a breaking up of the anæsthetic into its elements is nothing more than a hypothesis and one too which has little or nothing to support it The fact that it is one of the characteristics of bromide of ethyl that it is perfectly unirritating to the bronchi, goes to show that it is not decomposed if it were, the bromine in its composition one of the most irritant of substances would certainly manifest itself in its effects on the air passages

Wednesday last, under the influence of the new anæsthetic, bromide of ethyl, and about to be treated for stone in in the bladder. He had been about sixteen weeks under the care of Dr. R. J. Levis, one of the strongest advocates of the new anæsthetic, and was taken to the hospital by his direction. Linderman's health was very poor at the time. Dr. Ames, who applied the bromide, said no incision had yet been made, but Dr. John B. Roberts said it had. The patient was in such a condition that something had to be done, because he could not tide over the hot weather, 96° 98° in the shade.

"Dr. J. G. Lee, the Coroner's physician, testified that he found the brain congested, *the lungs far advanced in consumption, and the kidneys and liver enlarged* and two large encysted stones in the bladder. His opinion was that they could not have been safely taken out. *Linderman could not have lived over a week or two at any rate.* Dr. Lee said further, that he had experimented with the bromide on animals without bad results. In his opinion death resulted from exhaustion and prostration, the result of phthisis. The jury took the same view in their verdict."

In subjecting the new anæsthetic to this most severe test, we do not think our friend Dr. Levis was doing justice to it, knowing the extreme debility of the patient, and that the most simple nervous shock would render him liable to death. Hundreds of patients have thus died. Again, when ordinary ether, chloroform, or other anæsthetics cause fainting, which was no doubt the result in this case, respiration has to be resorted to, now we are reliably informed that when this useful means was resorted to by alternating and relaxing the chest walls, *the pus which was in this man's lungs was forced into his bronchial tubes and suffocated him.* Again we are very sorry that the valuable agent, nitrite of amyl, which has been found useful in such cases, was not employed.

In some recent experiments on animals, I crowded four ounces (the quantity stated to have been used by Dr. Sims) upon a dog for several minutes, by means of a tin inhaler, until he became apparently dead, with no perceptible action of the heart or lungs, but the expression of his eye was clear, and the pupil was dilated, while there was no secretion from the eyes or nostrils. The apparatus was removed in the space of four minutes, and he was exposed to the air when at once he began to breath, and by the end of the six minutes, he had almost entirely recovered consciousness. The dog did not seem much inclined to move for ten or twelve minutes afterwards. While this dog was only partly under the influence of this anæsthetic, having at first caught the inhaling apparatus with his under teeth, there was a good deal of rigidity, and slight tetanic movements of the extremities, but this was overcome by the free use of the ether.

Now, had we been using chloroform, just before we would have been ready to perform any experiments upon the animal, he would have been dead, and no removal of the anæsthetic nor the introduction of atmospheric air, would have been of any avail. Again if Squibb's rectified and absolute ether had been employed, we must have super saturated the animal, and been annoyed by the expectoration of large quantities of mucus. Then we frequently have seen tetanic convulsions, requiring several assistants to hold the patient, with great reduction of temperature, from the use of ordinary ether. The rapidity of the anæsthetic action of hydrobromic ether and its rapid elimination from the system by the lungs, are two of its chief merits for all operations that are not prolonged. If an operation is to be very tedious, and requires from one to two hours, we would advise the additional use of purified sulphuric ether to the anæsthetic. *We would therefore recommend pure hydrobromic ether in operations not lasting over forty minutes.* There is one great advantage in the use of this agent, that the administrator must attend to the anæsthetic all the time, he cannot watch the operation and forget the patient for a few seconds, his whole attention must be given to keep up its action. We have often felt sure that the wet napkin, from the water, in the ordinary ether pressed over the patients mouth by the weight of the body of the persons giving the ether, and watching the operation, were the indirect causes of the death of the patient. As an anæsthetic in labor, it has peculiar advantages in that it is so rapid in its effects, and the patient is comforted between the pains, but never passes into such a state of profound anæsthesia, that she is not aroused by the expulsive effort, and has all her consciousness about her, and there are none of the depressing effects of ether or chloroform. It is also most valuable in these cases in changing the position of the child, also in bringing forward the neck of the uterus into its proper position. In none of my cases was there disturbance of the bowels, pain in the back or head. To the country practitioner, who has to extract teeth or perform all the minor operations in surgery, it is a great boon, as it acts like nitrous oxide gas, it is well where a number of teeth are to be extracted, that a prop of hard wood attached to a string should be used so as to prevent such an accident as once occurred in Philadelphia under the use of nitrous oxide gas—the swallowing of a prop of cork. In many cases in which we do not want a very profound narcotism with hydrobromic ether, the muscles of the patient become rigidly contracted. This condition occurred in a recent case, when we administered ℥i of this anæsthetic and the operators finger was caught and pinched, as also his forceps, and yet before operating we could touch the cornea with impunity. Although the impression passed away very rapidly, we extracted twelve teeth with entire success, the patient promptly recovering consciousness, and not feeling the pain. In the following case the patient went under it very kindly. This patient was a man of very nervous temperament. With three drachms of the hydrobromic ether anæsthesia was produced without any struggling, and in four minutes from the time he had commenced to inhale it, the dentist had extracted ten teeth, and he had fully recovered consciousness, although he had just eaten a heavy breakfast of solid food. There was no nausea in either of these cases.

In a recent case of cataract extraction, the patient went beautifully under the influence of the anæsthetic, extraction was accomplished, and the patient recovered so as to be able to count fingers, yet owing to some strong coffee which she drank, from dyspeptic symptoms, or the swallowing of water soon after the operation, she became very sick at her stomach, and vomited for almost twenty four hours, and yet the case did well In case of operation for torticollis in a woman, she swallowed so much air with the ether, that as a consequence she complained of pain, of a hysterical character, in lower part of the abdomen, the same which is often the result of nitrous oxide gas inhaled, and too much air admitted

We received a letter from the late Dr J Patterson Cassells, of Glasgow, a distinguished aurist and a surgeon to the celebrated Glasgow Infirmary He writes that he has used a specimen of the hydrobromic ether, which I gave him at Cork, as vapor, in diseases of the middle ear, and has also employed it as an anæsthetic with success

As I have before stated,[1] "*no anæsthetic can be used with absolute safety*" See "A Presumable Ether-Death from Heart Failure," by John B Roberts, M D, *Medical News*, Sept 27, 1884, by the same author, "Ether-Death," *Medical Times*, June 4, 1881 "Case of Death following the Inhalation of Chloroform," reported by P L Helsman, M D, Albany (Ga) *Medical News*, Sept 27, 1884 No anæsthetic has been yet found that is free from danger, all will kill Chloroform kills in round numbers about one in every three thousand Pure ether is, next to nitrous oxide, the safest anæsthetic, only seventeen cases of death, and many of these doubtful, but it requires boldness and freedom in its administration If slowly or ineffectually administered it is apt to produce a free secretion of bronchial mucus, which occasions troublesome coughing If nitrous oxide is administered alone as a prelude to ether, the secretion of mucus is less troublesome, but there is a great amount of venous congestion and the tissues become gorged with blood, so that every incision tends to bleed Some surgeons use the mixture which is known as A C E, which contains one part by measure of absolute alcohol, two of chloroform, and three of Squibb's ether This is not simply a mixture, the absolute alcohol,[2] 99 4 per cent, causes a solution of the other two and they evaporate together But the mixture should be administered freely from a cone of felt or flannel, with a paper covering, and the desired effect should be produced as rapidly as possible The best results are by the agents which produce rapid effects, and which are as rapidly recovered from No other has produced such rapid anæsthesia as the hydrobromic, and it is the most rapidly recovered from

There are certain conditions of the system that forbid the use of anæsthetics Again, there are certain of this class of agents that should not be employed in prolonged operations, as, for instance, the "bichloride of methylene," bichloride of ethedene, and bromide of ethyl One or two deaths have followed the improper use of each of these agents, even when recommended by a committee appointed by the British Medical Association and by Sir Spencer Wells[1] As the result of the observations and experiments with the bromide of ethyl, my conclusions have been that one hour is the longest time that a patient should remain under the influence of this anæsthetic with safety," just as is the case in the administration of potent remedies like morphine, atropine, hydrocyanic acid, etc , no one will attempt to ignore or not use such valuable remedies because in certain individuals and under certain conditions of the system they produce death Can we in all cases rely on the experiments on animals as a true and absolute guide to determine our course in the human being? We think not, for it is a well-known fact that many animals eat plants which are deadly poisons to man, and certain anæsthetics are fatal to dogs Again, certain salts taken with impunity by man are poisonous to animals Experiments in the laboratory with the prolonged use of anæsthetics of two hours[3] duration, cannot be taken as the results against those obtained by numerous careful observers on themselves and others Clinical experience has now reached at least two thousand[4] well authenticated cases in which the bromide of ethyl has been employed with safety since 1880, when the two deaths were reported

I will quote only a few of the many impressions and experiments with the pure bromide of ethyl[5] The first is a gentleman very familiar with all the other anæsthetics, and his experience should be worthy of confidence

The following trials of this new anæsthetic were made to test its merits and to obtain personal experience of its effects For the record of occurrences after loss of consciousness, and for care and attention during administration, he was indebted to his friends, Drs Pilate and Conklin

First Experiment—March 14th Four hours after eating a moderate breakfast he proceeded to inhale the bromide of ethyl, in the recumbent position, and from a bottle just opened labelled "1 oz bromide ethyl" About one-fourth of the contents was poured into an Allis ether inhaler The first and immediate sensations upon inhaling it were a sharp pungent impression on the air-passages, a sense of warmth rapidly extending, and exhileration With the second inspiration he felt a decided influence upon the brain, and began to talk, anxious to continue speaking as long as possible, and to state his sensations A rapid beating in the ears is a constant symptom with him in taking chloroform, and immediately precedes entire loss of consciousness He marked its presence now, and also its early appearance It could not have been later than the third, or possibly the fourth, inspiration when he noted it, and this, as with chloroform, was the last sensation

---

[2] Ether fortior liquid 94 per cent of oxide ethyl 6 per cent of alcohol and a little water

Specific gravity 0716, at 77° F

[1] Turnbull on Artificial Anæsthesia second edition 1879

[2] Messrs Regnauld and Villejean (Lancet, July 6 1884) have confirmed my statements (see page 65 of the last edition of my work) that the so called chloride of methyline is a mixture of chloroform and methylic alcohol

[3] Dr B A Watson Jersey City "An Experimental Study of Anæsthetics Medical News p 313 May 1878 Method not given

[4] Dr Chisholm of Baltimore Md Med Jour January, 1883 Dr Prince of Jacksonville St Louis Med and Surg Jour October, 1883 and Dr L Turnbull of Philadelphia Medical Bulletin June 1880

[5] Two New Anæsthetics' by J C Reeve M D Dayton Ohio Cincinnati Lancet and Clinic

Upon opening his eyes after recovery from the anæsthetic, he immediately collected himself and could remember all, could talk clearly and had no confusion of thought. He felt a slight sense of nausea and a feeling of languor. Eight minutes afterwards he got up and walked about without dizziness, and was confident he could have done so sooner. He did not attempt it sooner because he felt that sickness would ensue if he arose. The feeling of nausea remained until he commenced eating his next meal, about forty minutes later.

Second Experiment.—Pulse at beginning, 80, just after ascending stairs. Two drachms administered. Symptoms began to be manifested after two respirations. Spoke of general warmth, pleasant sensations and beating in the ears. Anæsthesia produced in one minute and a quarter, in another quarter minute it was profound, as tested by a knife point. Pulse during the first minute ran up to nearly 100, then fell during next minute to about 70, feeble and intermittent. Pupils unchanged, normal, no struggling or excitement, but tetanic clutching of the inhaler so that it could not be gotten away only with difficulty. The anæsthesia lasted one minute and a half, then awakening without mental confusion. Pulse seven to eight minutes later, 64. He was not satisfied with this experiment, particularly in regard to the irregularity and intermittence of the pulse, not a very assuring symptom in anæsthesia, and a result not agreeing with other observers. He had a suspicion from this fact, and from the nausea, that the specimen was not pure. The bottle bore the name of a house which is always a guarantee of the good quality of medicines, but in the early period of manufacture of a new article, it would not be surprising if perfection was not immediately attained, he therefore obtained another specimen,[1] and one week after the above trial again inhaled it.

Third Experiment.—Being in the recumbent position, four hours after eating, one drachm, by measure, was poured into Allis's inhaler. He tried to take it slower this time, and count the respirations aloud to mark when conscious action ceased. He immediately felt the same grateful and pervading glow of warmth all over the body, counted to the seventh respiration, beating in the ears was again the last recognized impression. Pulse before, 80, at the end of the first minute, 120, one and a half minutes, at the rate of 100, at the end of two minutes, 78, no irregularity or intermittence. Pupils unaffected. Totally unconscious in one minute. Consciousness returned in three minutes.

It was his design to push the inhalation farther this time, and to test the muscular relaxation as well as to decide in regard to the irregularity of the pulse. Feeling that this had not been done, after about fifteen minutes he took it again.

Fourth Experiment.—Two measured drachms were poured on the inhaler, and he placed it over his mouth and nose. The impression was much stronger on the nose and air-passages, and the first inspiration made him cough. He then counted to the third inspiration, and was gone. Pupils the same as before, unaffected, pulse before taking, 78, at the end of the first minute, 124, one and a half minutes, 100, and of two minutes, 78, no irregularity or intermittence. Anæsthesia in one minute. At the end of three minutes from the time of beginning he got up and walked across the room, and could have remained up. As an effort at prolonged anæsthesia this was not, therefore, a success. In eighteen minutes he was on his way driving to see a patient. He had not the slightest nausea after these two inhalations, felt, if anything, better than before.

Fifth Experiment.—His next trial of the agent and first attempt at administration, was not satisfactory. The patient was a man aged about 50, a wiry, muscular fellow, of the type and build likely to give troublesome symptoms with any anæsthetic. He was placed on the table for an operation for hæmorrhoids, by Dr. Conklin. He had brought with him for the administration a large conical sponge, with which he constantly gave the A. C. E. mixture. Upon this he poured two drachms of hydrobromic ether and placed it over his mouth and nose. After one long deep inspiration his face became deeply flushed, and he soon began to talk and then to shout. More of the liquid was poured on the sponge, but his movements interfered with the inhalation of it with promptness, muscular rigidity then came on, and was marked, respiration was very nearly if not quite stopped for a time by tetanic spasm of the chest. These symptoms were almost as bad as he had ever seen from ether, chloroform, or the mixed vapors. He had seen worse muscular action and rigidity, but this was as bad as generally met with. During this time the ether was rapidly added until the supply was exhausted (13 drachms), and sufficient relaxation was not produced to make the operation feasible. No observations could be made, of course, of the patient's pulse. He recovered consciousness quite rapidly, as compared with other anæsthetics, and suffered no unpleasant after-effects.

This was not, of course, a fair trial of the remedy. The mode of administration was decidedly faulty. It is an ether, and must be given as an ether, and that this is imperative is the lesson to be learned by this failure.

"The personal experience with hydrobromic ether fully sustains the observations of others as to its exceeding promptness of action, and the rapidity with which recovery from its effects takes place. It is also more pleasant to inhale than chloroform, which is not very unpleasant, and infinitely pleasanter than ether."

In my own experiments on animals I found that frogs, placed in a watery solution of ethylic bromide, become as completely anæsthetized as if they were immersed in an aqueous solution of chloroform.[1] Berger states to the Société de Chirurgie (*Le Progrès Medical*) that he had been impressed by the rapidity with which these animals succumbed to its vapor. Terrillon administered the vapor of ethylic bromide to eighteen dogs without accident to any one of them. In the writer's more recent experiments with the vapor of ethylic bromide he crowded four ounces

---

[1] From the house of John Wyeth & Bro. Philadelphia.

[1] Opt. cit. "Artificial Anæsthesia." Turnbull.

(the quantity stated to have been used by the late Dr Marion Sims, of a very impure article,[1]) upon a dog by means of a tin inhaler, in which was a sponge, strapped to his head, until he became apparently dead, with no perceptible action of the heart, or respiration, but the pupil was clear and dilated, while there was no secretion from the eyes or nostrils The apparatus was removed, and in four minutes he began to breathe, and at the end of six minutes he had recovered consciousness, but was not inclined to move for ten or twelve minutes In the beginning of the inhalation there was a good deal of rigidity and slight agitation In twelve cases there was muscular relaxation, and in six a period of agitation, no death In order to produce anæsthesia, it was advisable to administer the ether vapor very freely and without admixture of but very little atmospheric air, on account of its volatility

In Terrillon's experiments muscular relaxation occurred in human beings in two or three minutes, at times there was congestion of face, neck and upper part of the chest The pupils did not contract, but were dilated The pulse was always quickened, and every fresh dose caused fresh acceleration Respiration was always hastened, and a hyper secretion of the buccal and pharyngeal glands took place Sensibility and consciousness returned with great rapidity, vomiting was not uncommon both during insensibility and sometimes for hours after Verneuil, at the same meeting of the Sociéte de Chirurgie, stated that one patient, a woman, to whom he had given the vapor of ethylic bromide, was asleep in an instant, and Terrillon stated that anæsthesia may be produced in less than a minute In our own experiments the shortest time necessary for primary anæsthesia was thirty seconds

Dr W C Wood found, by experiments upon animals, that if the vapor of ethylic bromide be given with moderation, anæsthesia may be produced without notable reduction of blood-pressure In the experiments of Dr C C Gay, of Buffalo, the agent employed was evidently, from color and taste, impure, as was also that used by Dr D C Wilkinson,[3] of Galveston, Texas In Dr I C Moore's cases the ethyl was abandoned for ordinary ether, even when the insensibility had not passed off, owing to the exhibition of so called bad symptoms, great excitement, with intense and persistent retching and vomiting, with venous engorgements The article was stated to be pure, and was from Wyeth & Bro

The great demand for the article and the cost and care requisite, caused many imitations to be placed upon the market, and even the original manufacturers did not take sufficient time to purify it, so that for a time the article contained carbon bromide (CB_4), and free bromide and bromoform These were found in the specimens employed by Dr Sims, in the form of a brown acrid liquid, with a pungent and disagreeable odor Twenty drops of this given to a rabbit which had previously taken two grammes (thirty grains) of pure ethylic bromide without the slightest ill effect, produced irritation of the gastro-intestinal tract, followed by death in eighteen hours[1] As observed by Dr Henry M Lyman "All experience shows that the administration of anæsthetics to such patients is attended with danger Even sulphuric ether may prove fatal if the kidneys are seriously damaged, and pulmonary disorganization is a well-known source of danger during the inhalation of anæsthetic vapor The administration of chloroform to such a patient would have been a very hazardous undertaking The fatal results in these cases cannot be so charged against the particular anæsthetic employed, as against the exhibition of any anæsthetic agent whatever "

That ethylic bromide may be employed with ease and success, has been abundantly proved by the experience of many observers M Bourneville has administered it to a large number of patients in the Salpêtrière Hospital, for the arrest of paroxysmal hysteria and of epilepsy He has also administered it daily by inhalation for fifteen or twenty minutes, with the fortunate result of considerably diminishing the frequency of the convulsive paroxysms In several of these cases the temperature was depressed about half a degree centigrade during the act of inhalation Immediately after the withdrawal of the anæsthetic the normal degree was recovered, and sometimes even surpassed The pulse in about five hundred administrations was somewhat accelerated during the period of inhalation In six instances only was retardation observed Respiration in like manner was almost always accelerated A copious overflow of tears was nearly always remarked The urine never contained either albumen or sugar, and the quantity of the liquid was not affected Rigidity of the limbs and tremor involving the upper extremities, were sometimes noted Daily inhalations for a period of two months exercised no unfavorable influence over the general process of nutrition, five patients found their weight increased during this period

There are certain preparatory precautions which are necessary to the safe inhalation of the bromide of ethyl

1 All tight-fitting garments in and about the neck and chest should be loosened

2 The saturated ethyl vapor must be inhaled almost to the exclusion of atmospheric air The best form of inhaler is a thick towel folded in the form of a cone, closed at the apex with a large pin, between the folds of the towel place a sheet of newspaper

3 Instruct the patient in advance to make deep and long inspirations In the cone place about one drachm, by measure, and at once cover the nose and mouth with it, and do not remove the cone until anæsthesia is produced, which will be in from twenty to thirty seconds

The anæsthetic sleep will not last more than from two to three minutes The patient retains the usual healthy color of lips and skin, and the pulse first becomes rapid, then slower and stronger as the narcosis becomes profound. The patient, as a rule, awakens suddenly and completely, but if there is nausea or much agitation, it is best for him to remain quiet and in a horizontal posture for some time.

---

[1] The writer received this specimen of the article from his own hands and after testing it found it very impure and of a brown color

[2] Medical Record July 17 1880

[3] Medical Record May 15 1880

[1] D S Wolff Am Journal of Pharmacy May 1880 The writer also obtained a portion of the same liquid from Dr Wolff and on comparing it with the specimen from Dr Sims found it to be the same

[2] Artificial Anæsthesia and Anæsthetics Pp 220 221

Perhaps no operations are more painful than those on the eye, eyelids, or eyeball, in a sensitive person, and there is no anæsthetic that I have found so applicable as bromide of ethyl in such operations. I recently administered it for the removal of a deep seated tumor of the eyelid, the operation being performed by Dr. Hermann Knapp, of New York. The patient took the towel in her hands and applied it to her face with about two drachms of the ether, and in thirty seconds she was so completely anæsthetized that she was not conscious of one particle of pain until the tumor was entirely removed; she had no nausea whatever, or any other disagreeable symptom.

Again, in operations on the diseased mastoid cells, I have employed it in some twenty cases with entire success, and in a very recent case in which the whole bone was diseased and much of it had been removed, an opening had to be made of a most painful nature. I administered the bromide of ethyl to this patient, who was very much exhausted by profuse discharge from a large cancerous growth. The patient went under the influence of this anæsthetic with the most delightful effect, not suffering at all from the operation, and going to sleep after it without a bad symptom.

We have, in times past, heard a great deal of the injurious effects of bromides, and at first we felt that it might be so, reasoning in a chemical way, and for a time we gave the hydrobromic acid and ether with great caution, never exceeding thirty drops three times a day. But not so now; experience has taught us that we can use it, if well diluted, up to sixty drops three times a day without any injurious results. To obtain its full physiological effects in epilepsy, certain cases of pulsating tinnitus aurium, and in preventing the disagreeable cephalic symptoms occasioned by quinine and iron in these various nervous affections, we have found it at times very satisfactory. The salts of this agent, bromine, can be and are used with the greatest freedom in the form of bromide of potassium, sodium, and lithium, in doses of grs. xl–ʒvi, given in six days without the least fear of its injurious effects upon the most delicate stomach, and relieving, as by a charm, convulsions, epilepsy, whooping cough, sleeplessness, headache, cerebral disturbance, tetanus, and all forms of mental derangement.

As well observed by Dr. Chisolm:[1] "For office use I find the bromide of ethyl invaluable on account of its promptness, efficiency, evanescent nature of the anæsthesia, indeed, the absence of nausea, and the perfect comfort with which patients operated upon can leave my office within a few minutes after the ethylization."

Bromide of ethyl should never have taken the place of chloroform or sulphuric ether where any tedious operations are to be performed, but there is no reason why this useful anæsthetic should not be employed in all operations in minor surgery and in those on the eye, ear, throat and nose, having everything ready in advance so that the patient shall be as short a time as possible exposed to the evil effect of an anæsthetic.

I conclude this brief paper by the results which I obtained, and the conclusions I then arrived at (1879), and I still consider them my firm opinion at the present time, after using the article from 1878 to 1884 in all my office operations.

	Minutes	Seconds
Shortest time taken to place a patient under the primary anæsthetic influence	0	30
Longest time	5	00
Average time	1	30

I did not then advise that bromide of ethyl should be resorted to in protracted operations, and I never have employed it in any case longer than forty minutes, and have never used more than four ounces of the pure ether in one case.

1502 Walnut St., Philadelphia, Oct. 12, 1885.

NERVOUS PAROXYSM.[1]

BY HENRY T. BYFORD, M.D.,

OF CHICAGO.

On account of the frequency with which syncope, shock, collapse, hysteria and other pathological conditions have been confounded in the diagnosis of the intelligent practitioner, I have considered it worth while to record a few cases of a hitherto obscure form of nervous paroxysm, with the object in view of separating it from the several diseases with which it is confounded, and of investing it with a distinct entity.

I copy the following case from the *Obstetrical Journal of Great Britain and Ireland*, for October, 1874:

"On Sunday morning, April 5th, I was called at 9.20 to see Mrs. C., aged 41, in labor of her tenth child. I reached the house at 9.50, and found child and placenta attached expelled. The nurse did not arrive for half an hour after I reached the house, but an intelligent servant informed me the child had been born fifteen minutes prior. I found the uterus perfectly contracted, no trace of hæmorrhage beyond what is usually lost, and her general condition perfectly quiet.

"After bandaging her securely, a well adjusted pad being placed over the uterus, I admitted her husband, who congratulated her on her safe delivery. He remained for about twenty minutes, and then left the room. Five minutes had scarcely elapsed when I noticed some pallor coming over the face. Thinking hæmorrhage might have been the cause, I examined carefully and found none externally; then I opened the binder and removed the pad, with the same result. The uterus was well contracted. At this time the faint was well marked. I then gave tablespoonful doses of brandy with volatile ammonia, and applied sinapisms over the heart and calves of legs. At the end of thirty minutes she began to revive, which was marked by *vomiting of hard boiled*

---

[1] Maryland Medical Journal, January, 1883.

[1] Read before the Chicago Medical Society, Oct. 2d, 1885.

egg and seed cake. During this faint I thought she died. The rally continued about thirty minutes. She then wanted to be raised in bed, and *complained of want of breath.* A pallor came over her countenance. I again examined for external and internal hæmorrhage, and found none. During this examination *she grasped my neck and raised herself upright.* I immediately placed her in a recumbent position, plied her with brandy again, and ammonia and beef tea. I called a consultation, but notwithstanding our united efforts, she never rallied from this. Half a bottle of brandy and half an ounce of volatile ammonia were used. I may mention she was an anæmic woman. *She suffered from mucous diarrhœa for a period of two months* (the sixth and seventh), which injured her health very much. Beyond a weak heart, I could find no other evidence of disease. Can you, or any of your readers, give any insight into this case?"

At one of the clinics in the Mercy Hospital, Chicago, during the winter of 1871 and 1872, I witnessed an operation for varicocele upon a young baggageman of an exceptionally powerful physique. One morning, a few days later, word was sent to the house-surgeon that the patient was dying. Armed with brandy and ammonia, the excited young graduate hurried to his bedside and, finding him in an apparently dying state, gasping for breath, commenced pouring brandy and ammonia down his throat. But the brandy, ammonia, electricity, raising of the foot of the bed, etc., all failed to prevent a fatal result. The heart was subsequently examined without realizing the cause of death. Two or three days later the body appeared in the dissecting room, as magnificent in form as on the day of the operation, but turned blue from the shoulders up, and marked with unmistakable signs of death from asphyxia. The sudden change from a life of great physical activity to absolute inactivity, in a horizontal position, along with the indulgence of a good appetite, had led to an attack of reflex cardiac disturbance, dyspnœa, and mental confusion. Unable to swallow properly, the brandy and ammonia had found their way into the trachea, and strangled him.

Four years ago I was hastily summoned to see a patient, convalescent from pelvic cellulitis, who was reported to be dying. I found her pale, haggard, bluish and sunken about the eyes, and gasping for breath. She was just getting over a paroxysm, and begged me not to let her die. I quieted her fears, and thus made her easy for the time, but gave her no medicine (although she had a mild attack of dyspnœa soon afterwards), except cold water to drink and mustard to the epigastrium. During the two paroxysms which she had before I came, *her breath seemed to leave her, and once she threw herself out of bed in her distress.* Great exhaustion of course followed each attack. She could not tell whether she had entirely lost consciousness or not, but described her physical and mental suffering as infinitely greater than during her ordinary fainting spells. Her attendants all thought her dying.

Although previously unable to take any but the lightest nourishment, she had that day, against her inclination, *been fed a large bowl of thick pea-soup and a poached egg on toast.* As the attacks were soon over, I gave no emetic. The pulse remained at 120 and the temperature near 100° F. for two days, when they became normal, almost at once, *after the vomiting of a large quantity of dark grumous material.* She then had no more trouble. Had ammonia been poured down her throat during one of the paroxysms, her death might have been as great a mystery as was that of the two other cases related. The dyspnœa and distress, already existing, would mask the fatal action of the irritant upon the glottis and trachea.

The three cases explain each other. The parts of the first case which I have italicized show it to have been no ordinary faint. Its similarity to the third case mentioned (see italics), in which the patient, almost an habitual fainter, recognized a great difference, make it appear like a similar, but perhaps severer, paroxysm. The second case could hardly have been a case of failure of the heart's action, but is chiefly interesting in showing how the treatment may be infinitely more dangerous than the disease.

The following is a mild case from notes taken at the time of attendance.

Mrs. T., aged 33 years, with three children, was treated by me a couple of years ago for sterility of four or five years' duration. The uterine disease present did not seem to cause any inconvenience. She bore a child twelve months ago, and had felt well up to the time of this sickness. Is plump and well-nourished. While listening to a funeral sermon in church she was attacked with a feeling of smothering about the heart and chest, and a feeling of weakness and trembling in the limbs. She experienced a peculiar sensation of swelling about head, with great mental confusion and alarm, and had a great fear of falling dead as she had heard of others doing. She hurried out of church, and was soon relieved by cool air and cold water douches. Two days later she had another attack during regular services at church. Was taken with similar feelings the next day in the street car, on her way to my office. Had a feeling of heaviness, and spells of gasping, previous to attacks. She came to ascertain whether she had heart disease or was threatened with apoplexy. She exhibited a putty tongue and sallow skin, as well as other evidences of disordered digestion. A few days later she had still another paroxysm. A physician in the neighborhood, who was called in at the time, stated that her countenance evinced extreme anxiety, that her extremities were cool, her pulse somewhat depressed, and her mental condition one of nervous exaltation and confusion, as was subsequently proved by her contradictory statements. A few days after this she again had a slighter attack, in which cold extremities, head symptoms and anxiety were the most noticeable symptoms of which she complained. The treatment consisted, in the main, of dilute hydrochloric acid, laxatives, and antispasmodics (such as chloral by night and valerian by day), a simplified regimen, massage, and, later, quinia and other tonic measures.

It may not be amiss to relate here the case of Mrs. O., who was under treatment by the same physician

Arriving at her house a little ahead of him, I noticed an acid mixture and a bottle of elixir of valerianate of ammonia, dated a day or two later than the occasion upon which I recommended him to give the same to Mrs T The patient complained of having had attacks of a sensation of fluttering and pain in the region of the heart, with great difficulty, and at times total disability of speech, oppression across the chest, queer feelings about the head, ringing in the ears, flashes of heat, headache and pain under the shoulder blades In the less pronounced paroxysms, one or more of these symptoms would be absent, but in all, anxiety of countenance, and fear of immediate death, were prominent The notion that she was to die in one of them kept up a mild condition of shock, and could not be got out of her mind The pulse was fair, and the temperature normal The tongue was decidedly coated She had a great deal to say about a feeling of general weakness After a careful examination, I could discover no exciting cause except prolonged emptiness of a disordered stomach

She had had a miscarriage about seven months before, and had since received local treatment for an ulcerated cervix Her sister was in an insane asylum The attending physician informed me that she had been taken a month before with chills and vomiting, followed by evidences of malaria and hepatic derangement, and, although she at first improved upon quinine, iron and cholagogues, she had lately been getting weaker was then bedridden, and subject to these paroxysms both day and night He thought that her nervous temperament, the mischievous gossip and anxiety of her neighbors, and prolonged nervous debility, had conspired to render her partially insane

We put her upon 15 minims of acidulated tincture of iron three times a day, a liberal but carefully systematized diet, and ammoniated valerian as might be found necessary Strychnia was to be given as soon as the stomach would take kindly to it, and arrangements were made for getting her out of bed We relieved her mind and gained her cooperation by promising a speedy and perfect recovery Although her ailment was almost chronic, she did not have another paroxysm, and was able, four days afterwards, to travel two miles in the street cars to the doctor's office The case was, upon the disappearance of the paroxysms, transformed into one of simple nervous debility

The most common exciting causes, according to my experience, lie in the digestive system, although subsequent observation may give the cutaneous, osseous, sexual, and urinary systems some prominence Debility, plethora, impure states of the blood, sudden changes of habits, severe strains upon vital forces, parturition, functional or organic diseases, etc , are predisposing causes

The attacks are of a convulsive character, but differ from ordinary eclampsia in that consciousness is not usually lost, nor the voluntary muscular system always affected Internal convulsions, or the laryngismus stridulus of children, is a disease of the same nature Nightmare, and the sense of suffocation sometimes felt after the taking of heavy or irritating food upon a disordered stomach, may be considered as mild or modified forms Shock may be, or become, a complication of severe cases, and cause them to be diagnosed and treated as syncope It will be interesting and perhaps instructive to compare the prominent symptoms of the two

TRUE SYNCOPE	NERVOUS PAROXYSM
1 Often preceded by a feeling of oppression about the epigastrium, or nausea and general malaise Patients feel the attack coming on	1 Often preceded by nervous irritation, heaviness about the stomach, and frequent desire to take a deep inspiration (gaping), sometimes by a feeling of nervous exaltation, or equanimity greater than usual Onset is usually sudden
2 Pallor, vacant expression of countenance, and mental calm in the beginning, with dullness of special and general sensation	2 Pallor, anxious countenance, mental distress in the beginning, with acuteness of special and general sensation
3 Muscular relaxation	3 Muscular rigidity or activity
4 Dyspnœa, if any, not distressful—objective rather than subjective.	4. Dyspnœa distressful—more subjective than objective
5 Unconsciousness absolute	5 Seldom absolute unconsciousness *Mental confusion or* incapacity
6 When not fatal, attack passes away rapidly, especially if patient in recumbent position	6 Passes away gradually, more rapidly if head and shoulders be elevated
7 Temperature normal or below (unless elevated by disease)	7 Temperature normal or above
8 Seldom recurs if head be kept low	8 Usually recurs, or threatens to recur shortly, even if patient lie down
9 Heart's action greatly depressed	9 Heart's action irregular, spasmodic, and only moderately depressed
10 Seldom very disagreeable recollections of distress during the attack	10 Very disagreeable recollections of distress during the paroxysms
11 Stimulants afford relief	11 Stimulants aggravate

It will be observed that the attack is not at all related to syncope, with which it has been confounded, but is in reality a paroxysm or involuntary frenzy (usually of reflex origin), in which the interference with vital functions is due to spasmodic action, rather than relaxation, of the respiratory and circulatory muscles In searching the books for a description, we will find that reflex syncope is made to include some cases So called hysteria receives many into its myriad arms, while nervous prostration and gastric irritation have been stretched to cover a large number

The treatment may be conveniently divided into three parts

1 Management of the paroxysm
2 Removal of the cause
3 Restoration of the disordered animal economy to its normal relations

The management of the paroxysm requires more calmness and patience, on the part of the physician, than active interference And especially should stimulants, such as brandy and ammonia, be reserved The indications are rather to diminish the anxiety, or shock, by assurances of a speedy recovery, and to allay the reflex nervous irritability by such remedial agents as massage, counter irritants to the epigastrium, nape of neck, or spine, cool air, cool drinks or douches, and heat to the extremities Valerian, cannabis indica, bromides, chloral and the hot bath may be resorted to when milder measures fail

3100 Forest Ave

A CASE OF RETAINED DEAD FŒTUS[1]

BY J A DIBRELL, JR, M D,

OF LITTLE ROCK ARK

A brief report of a case of this kind, seen some years ago, in consultation with Dr William Thomson, of this city, and Dr D H Dungan, is deemed of sufficient interest to engage for a short time the attention of this Society The case is believed to be an unusual one in several particulars

Mrs A , aged 32 years, of a rather delicate constitution, mother of two children, the youngest 10 years of age, had up to May, 1877, been regular in her catamenial periods, and had otherwise enjoyed her usual health In quantity, her menses had always been very free, generally lasting five or six days In this month her menstrual molimen made its appearance at the usual time, but had never in years before been deficient in quantity, and though always painful, was more so now than formerly She had uneasy sensations, and greater discomfort than was her habit Following this "period" in regular order, appeared the ordinary symptoms and signs of pregnancy, viz nausea, vomiting, changes in the color and size of the mammæ, and gradual enlargement of the abdomen In June, July, August and September, her menses appeared at the proper time She with good reason believed herself to be pregnant, though constantly oppressed with the fear that something was wrong During three months she suffered continually with nausea, and her general health began to decline

On the 20th of September, as nearly as she can recollect, she menstruated for the last time This period was one of great suffering The menses appearing regularly, though abnormal in quantity and character, in the presence of what were considered unmistakable evidences of pregnancy, was a constant source of perplexity and anxiety to the patient She was confident at times that she was pregnant, and at others disposed to attribute her condition to disease About this time, she experienced what she believed to be movements of the child About October 1 she was more confident that she felt life These movements were always vague and ill defined, and she thought it quite possible that she might be mistaken altogether, but after this date she is very positive that she felt no movements whatever in the fœtus On November 22, a sudden discharge of blood and water from the uterus took place, accompanied and followed by agonizing pains in the back, and later by bearing down pains The patient kept her bed for five days, and labor not having terminated, but, on the contrary, the pains having become less poignant and less violent, she tried to get up, and leave nature to take its course From this time on, there was always a fetid discharge from the womb

During the month of December and half of January she had labor pains quite constantly, a period of repose then following

Dr Thompson, the attending physician, to whom I am indebted for the privilege of seeing this case, and also for most of the above history, had, during this long siege, repeatedly but ineffectually made efforts to stimulate the uterus to expel its contents, by means of oxytocics and sponge tents The os was never dilated to a greater degree than would just admit of the introduction of the end of the index finger

On February 11, 1878, I saw the case for the first time The os, on examination, was found to be dilated to the extent already indicated It was firm and unyielding It was indurated and felt not unlike cartilage The anterior lip of the cervix was enormously hypertrophied, suggesting at once the idea that the enlargement was due to a pathological growth rather than a simple hypertrophy An attempt to forcibly introduce the finger into the uterus had to be abandoned in consequence of the suffering the procedure induced A sound was tried, and passed two and one-half inches, but Dr Thompson had previously been able to pass it to a depth of four and one-half, between the uterine wall and the secundines, as subsequent events appeared to prove

The patient was now very feeble She had had fever for some time, and was much exhausted by pain and anxiety Since November she had a dark-colored and highly offensive discharge, and we believed her already septicæmic

February 14, the case was again seen with Drs. Thompson and Dungan The condition of the patient was much the same as it was at the time of my first visit, three days before, except that, on the 13th, the membranes were ruptured, and a discharge of water took place, in quantity fully as great as is commonly lost in ordinary labor The uterus was now diminished in size, the fundus was midway between the umbilicus and pubis, having descended from a point two fingers' breadth below the umbilicus Since this event, the pain had been almost continuous, but no further dilatation of the os took place It was suggested that another attempt should be made to dilate the os with sponge tents

The next day, February 15, Dr Thompson succeeded in introducing three tents, which in a few hours dilated the os to nearly the size of a silver dollar The feet of a fœtus could now be reached, and were finally brought down, the patient being under the influence of chloroform Much difficulty was experienced in extracting the trunk, and the head refused to pass through the os In making traction, as had been anticipated, the head separated from the trunk and remained in the womb As the os was not sufficiently dilated to admit of the introduction of obstetric forceps, Loomis's placenta forceps were applied to the head. As soon as the head was seized, the forceps would slip and the head roll around in the uterine cavity. Some hæmorrhage now occurring, it was feared that in the introduction of the forceps the placenta had been partly detached, and our patient being in no condition to lose blood, further attempts to deliver with this instrument were abandoned.

---

[1] Read before the State Medical Society of Arkansas April 23 1885

Introducing the hand into the vagina, prolonged faithful efforts were made with the fingers to dilate the os, but without success. Two fingers could be introduced into the womb and carried beyond the head, but the delivery could not in this way be effected. Attempts were made to break down the head, but in this also we failed. A process of boring and scratching was now resorted to, by which means a hole was made through the scalp and skull, or in an interval between the bones, and the head was brought out on the end of the index finger.

The placenta was adherent, very soft and friable. In attempting to detach it the fingers would pass through it, the mass offering but little resistance. In color it was of a pinkish hue, contained but little blood, and had evidently undergone fatty degeneration. Holding up a large piece between the fingers it would tear away from its own weight and fall to the floor.

The fœtus, we believed, had attained the age of at least four and one-half months, and had probably been dead about the same length of time, judging from the history of the case, and not from the appearance of the fœtus itself.

We had expected to find a highly decomposed fœtus, from the fact that the discharge from the vagina had for so long a time been of a putrid character. But in this we were mistaken. It had, indeed, undergone post-mortem changes, but there was but little odor. The tissues were soft, flaccid, and the skin, that portion which remained intact after rough manipulation, was of a deep red color. The brain was soft and almost liquefied. The trunk was nearly eviscerated during delivery.

This case, which made a good, but slow recovery, has connected with it several points of interest.

1st. The rather uncommon occurrence of the continuation of the menses for months after conception. A case of this kind pursuing a favorable course to the termination of gestation, is looked upon as a physiological anomaly, and but little importance attaches to it. But, occurring under the circumstances above related, it must of necessity weigh heavily in arriving at a diagnosis as to the existence or non-existence of pregnancy, a most important problem in all cases to be solved, and especially so in one where the character and reputation of the patient may be involved. In the present case, had we attached undue importance to this one symptom which was presumably present, to the exclusion of others, we should have been led astray. And any one confronted with cases of this kind must admit that there are various difficulties as to diagnosis, whether the contents of the uterus be a fœtus or a morbid growth. But notwithstanding these facts, it is often of immense importance to form a correct conclusion. But if, in the very nature of the case, a satisfactory diagnosis cannot be made, a very guarded opinion should be given. Medical literature contains the record of many cases where the loveliest characters and purest natures have labored for a time against the baleful and unjust suspicion of illegitimate pregnancy, based upon the opinion of physicians, which time alone proved was not pregnancy, but disease.

2d. The long continued, determined, but fruitless efforts of the womb to cast off its foreign contents.

It is worthy of comment that the muscular contractions of the womb began shortly after the mother ceased to observe what she believed to be the movements of her child, that is to say, about the time it perished.

3d. The hypertrophied and unyielding condition of the cervix.

The length of time a dead fœtus may be retained and tolerated by the uterus seems to be indefinite. Cases have been recorded in which the devitalized fœtus has been retained, in some instances, for years, without giving rise to any great inconvience or impairment of the general health.

Dr. Bauer says that the length of time of retention of a dead ovum has more than a passing interest, beyond its pathological considerations, namely a moral interest possessing vital bearings in a medico-legal point of view. The entire absence of decomposition which the fœtus manifests on expulsion, together with the fact that during its retention there has been at various intervals a discharge of blood from the uterus, supposed to be catamenial may give rise to the mistaken, and perhaps embarrassing conclusion that the expelled ovum is the product of a conception as recent in date as the size of the fœtus would indicate without the consideration of retention after its death. Instances are not unlikely to occur wherein a woman becomes a widow at the first, second, or third month of gestation, the ovum at the period being blighted and remaining in utero to the utmost limit of gestation, and on expulsion presenting every appearance of an abortion of the mere common type. The *date of conception* becomes the delicate point, and an innocent woman suffers, perhaps, unjust accusation touching the purity of her character.

Playfair says, on the subject of the changes in the appearance and structure of the retained fœtus: "The extent to which the changes occur depends, to a great extent, on the length of time the fœtus has been dead, but they do not admit of our estimating with any degree of accuracy what that time has been."

Dr. McClintock, on the same subject, says: "It is not possible, I believe, to pronounce with any degree of certainty, from the appearance of the ovum, how long it has been carried in utero after being deprived of vitality—that in every case where our opinion is asked for as to the age of an ovum, it is a wise and safe rule to qualify our reply by saying that at the time its vitality *ceased*, it was of such and such an age."

NOTES ON THE USE OF ANTIPYRIN IN FEVERS[1]

BY GEORGE N ACKER, M D,

ONE OF THE ATTENDING PHYSICIANS OF THE CHILDREN'S HOSPITAL, WASHINGTON, D C

I desire to present for consideration some notes on the use of antipyrin in fevers, because during the past summer I have employed the drug in many cases of fever, and had such good results from it in all cases that I have come to regard it as an eminently useful, safe, and quick antipyretic Though of recent origin, it has at once assumed a prominent place as an important medicinal agent, and appears destined to take a high rank as an antithermic remedy It has suddenly and successfully sprung into favor, and as yet has not disappointed those who have used it in a rational manner I am anxious to learn from the experience of those present whether they have observed in their cases any unpleasant effects following its use, for as yet I have not seen any of the bad symptoms which have been attributed to it

The chart of several cases in which I employed the drug in my service at the Children's Hospital will illustrate better than words can express the good effect of the medicine in these cases Dr Kolipinski, the resident physician, to whom I am indebted for the notes, informed me that there were no bad effects following the use of the drug in these children It was given in the first case in 5 grain doses, hourly repeated until 30 grains were given In the second case, a 5-grain dose was given every three hours until 36 grains were taken

Case 1 —Colored male, æt 6 years, hectic fever, the drug was given several times, and each time the temperature was kept down by it This was a tuberculous case in which there was a subnormal morning temperature, and an evening rise to 104° The first day the chart gives

1st Morning temp 97, resp 32, pulse 108, evening temp 98 5, resp 44, pulse 112

2d Morning temp 97, resp 32, pulse 100, evening temp 98 9, resp 40, pulse 110

3d Morning temp 98, resp 30, pulse 100, evening temp 102 2, resp 48, pulse 120

4th Morning temp 98, resp 36, pulse 112, evening temp 102 8, resp 52, pulse 112

5th Morning temp 97, resp 32, pulse 104, evening temp 102, resp 44, pulse 120

6th Morning temp 97, resp 32, pulse 104, evening temp 99, resp 40, pulse 108

7th Morning temp 96,6, resp 36, pulse 107, evening temp 98 6, resp, 28, pulse 100

8th Morning temp 98, resp 40, pulse 126, evening temp 100, resp 44, pulse 128

9th Morning temp 98, resp 40, pulse 112

The drug was given the first and sixth days It had the effect of keeping the temperature down the same evening and several succeeding evenings, and the fever did not ascend so high as before the medicine was given Later on, the drug was again used on account of the high temperature On the evening before the temperature was 102 4 The next day it was morning, 99 2, evening, 99 2

2d day Morning, 97 5, evening, 101

3d Morning, 99 4, evening, 98 6

4th Morning, 98 6, evening, 101

This was repeated each time the temperature became high, with always the same happy effect

Case 2 —White male, æt 6, typhoid fever The drug did not act as well as in the first case, because the doses were not given close enough together to produce a good effect, yet the chart shows that the temperature was favorably influenced by the medicine In this case the temp had been 103 5, resp 24, pulse 140

1st Morning temp 101 5, resp 44, pulse 132, evening temp 102, resp 34, pulse 132

2d Morning temp 98, resp 36, pulse 124, evening temp 102 5, resp 52, pulse 120

3d Morning temp 99 8, resp 48, pulse 132, evening temp 102, resp 32, pulse 116

Thus the antipyrin, given the first day about noon and continued in 5-grain doses every three hours until 30 grains were taken, had the effect of holding the temp several degrees below what it had been before it was administered It was given again in this case with good effect The pulse and respiration records prove that these are not influenced by the medicine, and I may add that this was found to be the case with all the patients on whom it was tried

Recently, in a case of typhoid fever in a man æt 30, colored, I kept the temperature below 100° by the use of the antipyrin It did not have any effect on the evolution of the disease, yet the general symptoms were ameliorated by it In this case, grs lx were given in hourly doses of gr xv During the past summer, I gave it with beneficial effects in several cases of malarial fever One case, male, white, æt 12, had had a high fever with delirium for three days When I first saw him after this attack the temperature and pulse were normal, but the next day the boy had a temperature of 102 5, pulse 120, and was slightly delirious Fearing an attack of the same nature and length as the previous one, I gave him at once gr xv of antipyrin in water, and directed gr xv more to be given in an hour's time He slept most of the day, and awoke in the evening without fever, and was feeling well In this case it did not prevent a return of the disease, but cut short the attack, for I believe that without the drug the child would have had a high fever with delirium for several days, as quinine did not appear to influence the temperature

Jahn and other writers have recorded during the past year splendid results obtained from the use of this drug in puerperal fever and febrile conditions due to operations on the abdominal organs (JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, Vol iii, No 22) Dr Samuel Macknew, in the *Lancet*, Sept 5, 1885, has an article entitled " Notes on Some Cases of Typhoid Fever of a Cerebro Spinal Type, Hyperpyrexia Treated by Antipyrin " In the cases detailed the treatment of high temperature by the use of antipyrin and sulphate of quinine was well contrasted The former, in two doses of gr xxx each, reduced the temperature from about 104° to near normal every time it was administered, whereas sulphate of quinine failed to have any effect, though given in two doses of gr xxx each, two hours apart The tendency to high temperature was well controlled by frequent and regular doses of antipyrin He employed it on 102 occasions in eight cases The sulphate of quinine was the only other febrifuge used, but its use was, however, quickly abandoned when the pronounced superiority of antipyrin in this respect became apparent Among the disadvantages of the use of antipyrin has been, according to some, the fugitive quality of the physiological action of the drug According to Macknew, the effects of a full dose of gr xxx rarely persisted longer than six hours, and in many cases for a shorter period My experience does not bear this out, as I have found that full doses of gr lx, given in hourly doses of gr xv each, will keep the temperature down at least twenty four hours and sometimes longer, and will influence the rise for a few days In many cases the drug is said to produce a rubeoliform or scarlatiniform exanthema Macknew found the latter on the face and neck unaccompanied by any itching or subsequent desquamation Dr Paul Ernst has reported some cases in which a papular eruption followed the use of the drug, but which ran its course, though the medicine was continued He explains this by supposing that the system acquired a tolerance for the drug The eruption was thickest on the body and extremities, the extensor surfaces being more covered than the flexor I have never met with this manifestation of the drug in my cases, nor have I noticed nausea or vomiting, which are said to be caused by it In some of my cases,I have observed the diaphoretic action of the medicine, but it has never been so profuse as to weaken the patient or give rise to any trouble In a case of typhoid fever this appeared to do good, as it relieved the patient from the dry condition of the skin from which he had previously suffered

---

[1] Read before the Medical Society of the District of Columbia October 14 1885

May (*Deutsche Med Woch*, 1885) reports a case of collapse after the use of antipyrin Burrs (*Lancet*, February, 1885) has reported a death following the exhibition of the medicine Only gr xlv were administered, in two doses of gr xxx and xv at short intervals The fever fell from 103 5 to normal, and then collapse ensued from which the patient never rallied At the autopsy the brain, membranes and lungs were found congested The spleen was enlarged and softened, with a number of infarcts Infarcts were also found in the kidneys He states that there can be no question—though the patient was undoubtedly very ill—but that the extreme depression accompanying the fall of temperature was directly due to the action of the drug In other cases it had acted well, holding the fever in check ten to twenty hours

Prof Penzoldt directs that in children as many decigrammes be given as the child is years old, repeated three times at intervals of one hour If this dose does not suffice for the production of a decided effect, then it must be increased decigramme by decigramme In adults, most writers have stated that they had given 60 grs, divided in two doses of gr xxx each I have found it best to give gr lx, divided in four doses of gr xv each, and give them at intervals of an hour This has had a decided and continuous effect on the temperature

We must greet with pleasure the advent of any drug that will lower the temperature in typhoid and tuberculous fevers, and if we have found in antipyrin this long sought for agent—as I think we have—it will be a great boon to patients suffering from these diseases It is certain that we cannot resort in many cases of typhoid fever to the cold treatment (baths, pack, etc), and I do not think that it is always advisable to do so, for besides the prejudice of the American people against this method of treatment, I am not certain but that in certain cases it does harm Large doses of sulphate of quinine, which has been used in these cases to reduce the temperature, do not always have the wished for effect, but, on the contrary, sometimes do harm by increasing the head symptoms Antipyrin, on the other hand, relieves the delirium and disturbed sensorium This is also the best remedy we have to reduce the hectic fevers in tuberculous patients In fact, it is about the only drug that will certainly keep down the temperature in these cases

It is true that the natural evolution of diseases is not arrested by antipyrin, yet, by controlling the hyperpyrexia, and consequently the degenerative and wasting processes due to it, the drug is invaluable, and will doubtless in the future take an important part in the pathogenetic and expectant method of treatment of the zymotic diseases

MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS

Styptic or Hæmostatic Ether —Dr B Ward Richardson gives us an ether which, while checking hæmorrhage by cold, overcomes the subsequent relaxation of the vessels by its constringing action He has had prepared a solution of absolute ether, having a boiling point of 95° Fah, charged to saturation at a low temperature with tannin, and afterwards treated with collodion, a little short of saturation The compound ran easily through the spray tube without blocking, it produced good local anæsthesia, and it possessed an agreeable odor He tested it in a few drachms of blood which had been deprived of its fibrin by whipping, and then left for two days exposed to the air until it underwent partial decomposition The blood was placed in a saucer at the temperature of the body, the spray made to play upon it, and in five seconds the whole mass of blood was so thoroughly solidified that the saucer could be turned upside down without any escape of fluid The blood was also deodorized, and remained inodorous for ten days

When styptic spray is directed on an open bleeding, living surface, the primary effects are those produced by the cold—namely, the condensation and whitening of the tissues If blood be flowing, it solidifies, and when the parts relax, new blood that may ooze up enters the solid blood as though it were a sponge, the coagulation soon stopping further flow

The elements of this process are three in number

1 The immediate constringent effects of cold on the blood-vessels

2 The styptic action of the solution on the fibrin and albumen of the blood

3 The extreme mechanical fineness of distribution of the fluid on the bleeding surface

Styptic ether can also be applied to the hæmorrhagic surface after the extraction of a tooth, for hæmorrhage from cancerous disease of the uterus or other cause, and in cases of hæmorrhage from piles —*The Asclepiad*, July, 1885

MEDICINE

INTRA-CAPSULAR INJECTION OF WATER IN CATARACT-EXTRACTION —At the meeting of the Ophthalmological Society of Great Britain, on October 15, DR W A MCKEOWN read a paper on this subject His method consisted essentially in the substitution in the operation of extraction of a washing out of the cortex for the pressing, rubbing, and scooping out His method of operating was as follows He made the small flap section of the cornea above with puncture and counter puncture in the sclero corneal margin, and cut out about half a line from the corneal margin He always performed iridectomy After lacerating the capsule freely, and expelling the lens if any cortex were left behind, he introduced a perfectly clean "scoop syringe" well within the capsule, and injected gently distilled water of the temperature of about 100° Fahr, making gentle motion at the same time with the scoop to facilitate removal He had now used the scoop syringe in all thirty-nine times In one case only was there irido choroiditis, with complete closure of the pupil, good perception of light was retained In another case, there was most insidious iritis, beginning after the patient's discharge from the hospital, it went on to closure of the pupil, but there was a good prospect from iridectomy In the case of a syphilitic subject, there was a severe iritis arrested by artificial leeching and mercurial inunction In no case was there suppuration of the eye or of the cornea, and in no instance was there escape of vitreous humor from the use of the syringe Even in two cases of traumatic cataract, the syringe was used with advantage, notwithstanding the previous escape of vitreous humor In a few cases some iritic adhesions formed, as commonly occured in ordinary cataract operations, but caused no pain or diminution of vision In twelve cases, the cataracts were unripe, and in several the cortex was very sticky In the last thirty cases, he had had only one inflammation, and that was in the case of the syphilitic subject above referred to There were two cautions to observe, first, after iridectomy, to get the blood out of the anterior chamber as quickly as possible, secondly, to be careful to introduce the scoop within the capsule He did not believe in operating against time, but there could be no doubt that the quicker the work could be done and the eye bandaged, the better He timed the duration of the last eleven operations from the introduction of the speculum to the application of the bandage It varied from six to fifteen minutes, the average being about nine minutes The operations were all done without chloroform, and some of the patients were restless The conclusions which he thought he might draw from his own experience were (1) that the judicious injection of water within the capsule of the lens was innocuous, (2) that it was not liable to cause loss of vitreous humor, (3) that it was advantageous both in ripe and unripe cataracts, (4) that it shortened the average duration of cataract operations, and (5) that it was a most efficient means of clearing the wound —Mr McHardy said that the method might be used for ripening immature cataract, and to facilitate the removal of cortex at the time of extraction The method of trituration as advocated by Foster, the extraction being preceded by preliminary iridectomy, had been, in his hands, followed by no disagreeable results He had, however, noticed a loss of vitreous, which he was not accustomed to see in lenses that had spontaneously matured Posterior synechiæ could be broken down at the time of operation There might be danger and difficulty in getting the nozzle of the syringe within the capsule The capacity or water in removing the cortex was well known, and if he had to deal with a "sticky" cortex, he usually took the speculum out, closed the lids, and allowed the aqueous humor to be secreted into the open capsule, then, manipulating with the spoon, it was not at all difficult to remove the cortex after the aqueous humor had acted on it —Mr Mackinlay inquired whether Dr McKeown used cocaine He thought the nozzle of the syringe rough, and that it might be improved —Mr Critchett mentioned that M Panas, of Paris, irrigated the anterior chamber in cataract extractions, but the stream was produced by an assistant —Mr Adams Frost asked whether the method could be employed for lamellar cataract It seemed to him to be a sound surgical procedure, and preferable to the use of the scoop or manipulation —Dr McKeown, in reply, said that he did not employ the method in simple cases He had not had any trouble with the instrument The operator should get the instrument in behind some of the cortex of the lens He did not see why it should not be employed in lamellar cataract He now always employed cocaine —*Brit Med Journ*, Oct 24, 1885

APOMORPHINE IN CROUP AND BRONCHITIS —DR STUTZ, of Neuminster, is loud in his praises of apomorphine, subcutaneously injected in diphtheria complicated with croup, and in primary croup itself Of ten of these latter cases, he lost only one, and this he attributes to his not having been called in quickly enough Similar treatment is also very valuable in dyspnœa due to bronchitis He has also been successful in cases of arsenical poisoning in children, and in one where a woman had such severe pharyngitis that she was quite unable either to swallow or speak An apomorphine injection quickly emptied the stomach of pus and mucus, and enabled her both to speak and swallow —*Brit Med Journ*, Oct 17, 1885

SURGERY

ON THE AUSCULTATION SIGNS IN VESSEL-WOUNDS

—The sounds heard with the stethoscope are among the most important that one finds in cases of arterial wound, and WAHL (*Deutsche Zeitschrift für Chirurgie*, Bd XXI, Hft 1), after carefully verified observations and experiments, has come to the following conclusions in reference to them In the first place, he finds that in cases of partial division of the coats of the artery in which the cut is insufficient to allow the blood to escape from the vessel, though it may course for some distance between the coats, a distinct blowing or scraping sound, synchronous with the pulse-beat, is heard most plainly at the injured spot, though it is carried some distance along the coats of the vessel, and can be indistinctly heard a short space on each side of it In most of these cases the pulse can be felt below the place of injury, though the beat is not so forcible as on the sound side When a large vessel has suffered a gunshot or punctured wound, and the escaping blood is quickly brought to a standstill by the formation of a coagulum, a periarterial hæmatoma, which is generally without pulsation, is formed, and the stethoscope reveals a distinct murmur synchronous with the pulse On the other hand, when there is complete division of the artery-tube, the ends of the tube retracting and completely closing it—and in all instances where the continuity of the blood stream is broken, there is no sound to be heard at all, though the diagnosis is made sure by the absence of pulsation in the vessel below the wounded spot If the ends of the completely divided vessel yield to the blood current again, a soundless tumor rapidly forms The only exception to this rule is in cases where, through wound of the companion vein, there is a mingling of the arterial and venous blood streams These observations, he says, are practically valuable from the fact that we can safely determine the condition of matters when the chief symptom, the bleeding, is absent, and can then instantly use means to prevent the secondary hæmorrhage which is so likely to follow

DR VON DURING (*Centralblatt für Chirurgie*, No 16, 1885), cannot fully corroborate two of the results as laid down by Wahl He relates a case of subcoracoid luxation of the humerus where violent attempts at reduction were followed by the rapid formation of a traumatic aneurism of the axillary artery On cutting into the tumor, he found the vessel was completely torn across, the aneurismal sac was formed of layers of blood clot, the axillary remaining uninjured In this case there was a well defined whirring murmur as well as failure of the radial pulse, though the artery was completely severed and the vein intact During's experiments upon animals he thinks, justify him in concluding

1 That in the process of clot-formation the pulsation in the tumor very rapidly vanishes, except where the clot is very yielding in texture

2 That the sound very quickly disappears in cases where, through previous ligature of the vessels, the lumen intima is wounded and thrombosis favored

3 That the lumen of the tube often remains free, that in these cases, as well as in recent hæmatomata, a whirring sound synchronous with the pulse is heard, and that this is often accompanied by pulsation in traumatic aneurism, whilst pulsation may be absent in hæmatoma

He believes that quick retraction and occlusion are not inevitable consequences of the division of a vessel —*Medical Chronicle*, September, 1885

TREATMENT OF NÆVUS BY SODIUM ETHYLATE — DR B W RICHARDSON overcomes the necessity for waiting for the removal of the crust which forms over a nævus after the sodium ethylate has been applied, and which sometimes results in fresh growth beneath, by applying the ethylate very freely at first, adding a second layer of it when all the watery oozing has ceased This causes in three days an extremely firm crust On the third day, while the crust is still firm, instead of removing it, he punctures through it in three or more places with a sharply edged flat needle, and with the needle breaks up the vascular surface beneath freely On withdrawing the needle a few drops of blood exude from the needle points, which blood is taken up with cotton wool, pressing firmly so as to empty the surface entirely of blood Then a little ethylate is applied over the whole surface After four days, if, on pressing the crust, there is evidence still of fluid underneath it, the needle is once more inserted and used as before, but if the scale be flat and firm, it is allowed to remain until it falls off of itself and leaves an even and healthy surface —*The Asclepiad*, July, 1885

OBSTETRICS AND GYNECOLOGY

EXPULSION OF THE FŒTUS IN ARM-PRESENTATION —In a note on this subject MR HERBERT THOMPSON says I believe that the spontaneous expulsion of the fœtus in cases of arm presentation is so rare, that the following case may perhaps be worthy of record The mode of expulsion is well illustrated in Leishman's work on *Midwifery*, in which it is stated that Denman was the first to describe these cases, and was severely called to task by the eminent men of his day for suggesting the possibility of such an occurrence

I was called to Mrs N , in labor with her fourth child The water had broken three days previously On examination, I was unable to decide the nature of the presentation, but could tell that it was neither head or nates On examination again I found the arm hanging out of the vagina up to the shoulder, with very strong expulsive pains I tried to introduce my hand to reach the feet, but the expulsive efforts were so great, that I was obliged to desist I sent for chloroform but the messenger had scarcely left the room, when the patient said the child was coming On looking, I saw to my surprise the nates coming down by the side of the arm Another expulsive pain, and the legs appeared, the case being now resolved into one of ordinary breech presentation The head was easily disengaged, and a dead, but in no way decomposed, child was born, although the mother maintained that she had gone to her full time The child was very small, which probably accounted for the ease with which it went through its acrobatic performance —*British Medical Journal*, Oct 24, 1885

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

The Editor of this Journal would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

Subscription Price Including Postage
Per Annum in Advance $5 00
Single Copies 10 cents

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in registered letters

Address
Journal of the American Medical Association,
No 65 Randolph Street
Chicago Illinois

SATURDAY, NOVEMBER 21, 1885

THE PRODUCTION OF FEVER HEAT

We are told by various authors that the heat of fever is due to increased combustion of tissue, or to diminished liberation of heat, or to both together, either of which, theoretically, we might suppose would cause accumulation of heat, and account for the pyrexia Most recent writers upon the general subject of fever content themselves with a statement of the vital changes that commonly accompany increased bodily temperature, with a mention of the theoretical explanations of the causes of the heat, and an acknowledgement that no satisfactory explanation has yet been devised

We know that a destruction of tissue out of proportion to the nutritive matter assimilated occurs, and as a consequence heat is produced While we have, however, more heat evolved from tissue-change in a feverish individual than would be evolved in a healthy person, living upon the same diet, no more tissue-change takes place, and no more heat is evolved, than would have occurred in a healthy man while subsisting on a liberal diet We know also, that there is in fever great prostration, great loss of flesh, of strength, and of energy, not because of so great an increase in combustion or retrogressive change in the tissues, as on account of a cessation of assimilation and repair

It is evident, then, that unless some other factor were present besides the production of heat, we would not find the bodily temperature raised above normal In order to explain the increase of temperature, it is natural to turn to the mechanisms of the body, which manage normally the liberation of heat, for the necessary factor We would expect to find them, in pyrexial states, so acting as to prevent the liberation of heat from the body, and thus contributing to induce its accumulation This is in part true In the earliest stages of many fevers, we find the bodily temperature raised, but the cutaneous capillaries contracted, the skin cold, the limbs shaking, and the teeth chattering in a chill In fact, all the circumstances present are most unfavorable for the elimination of heat, and most favorable for its accumulation Later on, in many cases, the skin is found harsh, although hot In health, heat is eliminated and accumulation prevented, by exhalations of moisture from the skin and lungs And the lack of cutaneous moisture in many cases of fever would point to a probable diminution of the liberation of heat But this fact will not account wholly for the fever, since in very many cases in which the bodily temperature is highest, the skin is bathed in moisture, and every circumstance is favorable to the freest exhalation We can also provoke perspiration by the use of drugs, and yet the fevered state persists

Our hypothetical explanations of fever are, therefore, imperfect and insufficient, and any suggestions that will throw light on this most important pathological change, will be received with interest and pleasure One worthy of thought has been made by Dr W M Ord, in a recent address before the Medical Society of London Recognizing the inadequacy of our present explanations, he attempts to outline another He asks the question, "Is the increment of heat of body in fever due not only to combustion or other disintegrative process thereto allied, but also to the persistence in the form of heat of energy, which should have taken another form?" "Throughout the body we recognize two processes ever going on, the building up of tissues on the one hand, their disintegration on the other, The disintegration of tissues is clearly attended by the liberation of heat This upbuilding presents itself to me as necessarily attended by the consumption or disappearance of heat, which assumes some other form of energy, kinetic or potential" But Dr Ord admits that he can find no experimental evidence to show that heat is used up in the formative processes of the body, to confirm his supposition that the increased temperature of fever is due to the accumulation of heat, which in health is utilized in the process of upbuilding of repair and tissue formation Owing to this lack of existing evidence, he has attempted to create it He noticed that in fruit there were two strongly contrasted processes and stages of development; the stage of growth, when formative processes predominate, and result in the production of cellulose starch, etc , and the stage of ripening, when destructive or retrogressive changes predominate and cause the formation of sugar Fruit, therefore, offered in its two stages of development a good subject for experiments, which might throw light upon the utilization or conversion or destruction of heat in processes of growth Dr Ord used the growing and ripening cucumber for his experiments The fruit grows mostly at its ends If a uniform difference of temperature could be found between the air and the cucumber throughout its length, he argued that it would be due to evaporation simply, but if varying at different points along its length, it must be due to the vital processes taking place in it He conducted his experiments by taking, with the same delicate thermometer, the temperature of the air about the plant, the temperature of water standing beside it, and, by thrusting the thermometer into the fruit, its temperature at different points in its length By these experiments he found that the growing fruit is cooler in all parts than the ripening or cut fruit, and that it is coolest where growth is fastest, namely, at the ends So far as these experiments go, they would confirm Dr Ord's supposition that heat is utilized in processes of growth His experiments were too few, as he admits, to make inferences sure, they are, however, suggestive, and may lead to important results

Without doubt too little attention has been devoted to the study of the causes and consequences of lack of assimilation, of upbuilding and repair, which is as constant and prominent a phenomenon of the fevered state, as is the destruction of tissue, and the increase of temperature

---

In applying these considerations Dr Ord says "I believe that, in the production of fever-heat, there is a first factor of increased oxidation, or combustion, or disintegration, setting free heat," but he does not find this sufficient to account for all the increase of heat observed in pyrexia, and still more in hyperpyrexia The further increment he believes to be furnished by heat going astray in default of correlative change in metabolism Dr Broadbent has formulated the problem thus "If a theory of the febrile process is to be formed, it must be based upon a theory of the relation between the nervous system and the processes of nutrition and oxidation, and especially the latter" Dr Ord further suggests that "in all fever, slight or intense, there is superadded to the combustion which we recognize an influence of the nervous system, a trophic influence, arresting processes in which heat should be transformed, and that the increasing temperature is determined by increase of this inhibitory influence" In speaking of how these speculations may bear upon treatment, he mentions the effect and value of baths, which he considers as moderators, they attract, so to speak, the attention of the nervous system, and draw it off from the dangerous paths in which it sets out "In the treatment of hyperpyrexia, I know of nothing so trustworthy as the bath—cool, cold, or graduated," and of these he prefers the latter

DILATATION OF THE STOMACH IN CHILDREN

PROFESSOR MONCORVO, of Rio de Janeiro, was the first to call attention, in 1883, to the frequency of dilatation of the stomach in children, claiming that it occurs as often, even in young children, as in adults He showed at that time that the affection may be produced in newly-born children, and recent clinical observations have led him to conclude that the dilatation coincides, in almost all cases, with symptoms of gastric catarrh of variable intensity

It is not a little surprising, however, that dilatation of the stomach in very young children is not, so far as we are aware, referred to by a single author who has written of the diseases of the digestive tract The youngest child reported by Lafage as having dilatation of the stomach was ten years old, and Demme reports a case at six and a half years, which is the youngest reported by any observer other than Moncorvo In fact, Welch, the latest writer on dilatation of the stomach, says that this affection is rare in childhood, but he adds that Kundrat and Widerhofer state that atonic dilatation due to over feeding, and particulary to rachitis, is not infrequent in children—which coincides with Moncorvo's observations Moncorvo finds that defective feeding is always a preceding factor in these cases, almost all the children were bottle fed, though a very small number were fed on the mixed plan All these cases had undergone the consequences of such feeding—vomiting, colic, and lienteric diarrhœa

Besides the defective nourishment, the other hygienic conditions of these children, as regards dwelling and clothing, were bad, and their physical development was below par In many of these cases, also, there was a history of malarial intoxication, and almost all of them were hereditarily syphilitic It is a well recognized fact that hereditary syphilis, by its dystrophic action on embryonal life, affects all the organs to a greater or less extent, and the digestive apparatus second only to the respiratory It is not difficult, therefore, to account for its causal relation to dilatation of the stomach Severe malarial intoxication, especially such as is quite common in the eastern maritime portion of South America, is often sufficient for the production of dilatation of the stomach. The gastro-intestinal complications and consequences of malaria need not be dwelt on at length to American readers. And while malaria is not given among the predisposing causes of dilatation of the stomach, by setting up a gastric catarrh, its influence as an exciting cause of this catarrh is very well known. Its influence in the causation of gastric ectasia is easily seen, however, when to a malarial condition is added a defective alimentary hygiene.

There are still other cases, says Moncorvo, in which the stomach is mechanically dilated by a constant excess of food when the children are hereditarily syphilitic or enfeebled by other diseases, but these cases are more rare. Lastly, in some cases there are no longer symptoms of dyspepsia or gastritis, and every trace of the cause, save the effect, has disappeared.

The diagnosis of dilation of the stomach in children presents many difficulties, especially when they are very young. Children do not take kindly to physical exploration, so that the diagnostic means recognized as advantageous in adult cases are used with them only with considerable difficulty. *Clapotage*, for example, recognized as a valuable symptom in adults, is obtained with great difficulty in children on account of the energetic contractions of the abdominal walls produced by crying. Another useful means of diagnosis in adult cases, the noise produced by the falling into the stomach of a liquid swallowed "by gulps" while the epigastrium is auscultated, cannot be employed in young children. Moncorvo therefore employs what he terms "plessimetric gastro resonance," which is only a modification of the method of auscultatory percussion. The stomach is previously dilated by giving the child 30 or 60 grammes of a ten per cent solution of tartaric acid, following by a dose of the same quantity of a ten per cent solution of bicarbonate of soda. As soon as the stomach is dilated the bell of a Constantin Paul stethoscope is placed over the centre of the epigastric region, and while he auscultates he suddenly strikes the region with the index and middle fingers of the right hand, commencing near the bell of the stethoscope and going around in concentric circles. The clear resonance heard over the dilated stomach, he says, is heard only over the area corresponding to the stomach.

In concluding his latest and very interesting paper, which is to be found in *União Medico*, of September, 1885, he particularly insists on the etiological relations already spoken of, and again claims that dilatation of the stomach is much more frequent in young children than is to be inferred by reference to published works. He states also that hereditary syphilis and paludism are the predisposing causes in two-thirds of the cases that he has seen. Some of the children are rachitic, but he believes that this affection is often the consequence of hereditary syphilis.

UROGLAUCINE IN THE URINE IN SCARLATINA.

M. Pierre Apéry, of Constantinople, calls attention, in *Les Nouveaux Remedes*, of November 1, 1885, to the presence of uroglaucine (indigo blue) in the urine of scarlet fever patients. In a series of twelve analyses of urine from as many cases of scarlet fever, he found in every case a greater or less quantity of this substance deposited in small blue masses, which are so distinctive that they can scarcely be confounded with any other substance. Neubauer, Vogel, Kletzinsky and Schunck state that uroglaucine and urrhodine (indigo red) are sometimes found in the sediment of urine in cases of cystitis and Bright's disease, but rarely in the urine itself. But, so far as we are aware, Apéry is the first to announce the presence of the former in the urine of scarlet fever.

Uroglaucine may be recognized by filtering the urine and the deposits. The filtrate is then dried, and treated with boiling alcohol. This dissolves the blue materials and is colored violet, and on evaporation the uroglaucine is left with certain other matters, which are washed off with cold water. The uroglaucine is again treated with boiling alcohol, and by careful evaporation the small blue crystals are obtained (Yvon).

Uroglaucine, so named by Heller, is also called urocyanine, by Martin, and indigotine by Schunck. It has the same properties and composition, according to Yvon, as vegetable indigotine. It seems that it must be regarded as a product of the decomposition of indican or uroxanthine, which exists, according to Ritter and some other chemists, in small quantity in normal urine, but is increased in certain pathological states. The action of acids upon it gives rise to urrhodine, uroglaucine and glucose, and curiously enough the same transformation is affected by putrefaction. Casselmann and Strohl were probably the first to point out that indican is increased in diseases of the spinal cord and other grave affections. Hoffman and Ultzmann state, in their "Atlas," that *Harnindigo* (indigotine) is deposited spontaneously in a urine rich in indican, but it is probable that this takes place only after decomposition sets in. Though much work has been done, and much has been written, on the subject of urine pigments, it is still involved in much confusion and obscurity. Even the light thrown on the subject by the most recent and best authorities is far from complete as to the nature and origin of these coloring matters

It need scarcely be said that if Apéry's discovery be confirmed by other observers, it will be an important addition to our means of diagnosticating scarlet fever, which often varies so much in its symptomatology in different cases and epidemics that peculiar difficulties are sometimes presented in recognizing it It is to be regretted, however, that Apéry does not indicate the period in the course of the disease at which uroglaucine first makes its appearance in the urine, and whether it is absent in those affections from which scarlatina is to be diagnosticated It is to be hoped that he, or some other observer, will clear up these points

AMERICAN MEDICAL ASSOCIATION—WORK FOR THE NEXT MEETING

The summer vacations having fully passed, and the season favorable for literary and scientific work having returned, we would remind the officers and members of the Association that the time for the next annual meeting is fast approaching The interest and profit of every meeting depends almost entirely upon the degree of attention that is given to the preparation of papers, and the study of questions for discussion in the several Sections The Chairman and Secretary of each Section should actively solicit contributions from members who are eminent in the departments belonging to their respective Sections, and all who intend to prepare and read papers or reports should give early notice of the same to the officers of the Sections and to the Chairman of the Committee of Arrangements, that these officers may have ample time to arrange judiciously the programme of work for each day of the meeting One of the prominent evils, hitherto noticeable at almost every meeting, is the haste and consequently imperfect manner in which papers are prepared This arises, in a great measure, from the writers postponing the commencement of their work until it is so near the time of meeting that they are unable to complete it with proper care Let everyone, therefore, who thinks he has anything worth contributing to the common stock of professional knowledge, commence its preparation now while there is time enough to do it well, instead of waiting for that "more convenient season" which generally never comes

OFFICIAL NOMENCLATURE OF DISEASES —We learn from a circular issued by DR JOHN B HAMILTON, Supervising Surgeon-General of the Marine Hospital Service, that on and after the 1st day of January, 1886, the revised edition of 1885 of the the Provisional Nomenclature of Diseases of the Royal College of Surgeons of London will be used as the official nomenclature for the U S Marine Hospital Service, instead of the former editions

SOCIETY PROCEEDINGS

MASSACHUSETTS MEDICAL SOCIETY—SUFFOLK DISTRICT

SECTION FOR CLINICAL MEDICINE, PATHOLOGY AND HYGIENE

Stated Meeting, October 14, 1885

(Concluded from page 556)

DR F I KNIGHT made some remarks on

RECENT METHODS OF TREATING HAY FEVER

We all know how frequently the sanguine hopes aroused by some new form of treatment of disease prove delusive We read of various suggestions and experiments, but there is a feeling against trying severe and protracted methods of treatment unless there is a reasonable prospect of benefit from such a course.

The history of "hay fever" is generally well known up to the time when it was first associated with the *pollen* period of certain plants There is no longer any question with the majority of observers that the pollen of ragweed and various other pollen producing plants acts in a large proportion of cases as the exciting cause Dr Beard was the first to make an advance in our knowledge of hay fever, which he did by collecting the history of many cases and examining all the circumstances attending the disease in many subjects and various localities His researches led him to the conclusion that hay fever is to be ranked among the neuroses, and is the effect of a general or central disturbance rather than of a localized irritation Dr Daly, of Pittsburg, in 1881 proposed a local irritation as the cause of all the symptoms and advised the removal of the local condition of hypertrophy of the mucous membrane or other tissue by which the usual passages are obstructed This he tried in a series of cases and observed that the disease did not recur in the succeeding seasons Dr Roe, of Rochester, uses the galvano cautery extensively and with great success

DR Sajous, of Philadelphia, considers that any mode of treatment by which an organic change is produced in the substance of the membrane may be followed by more or less complete relief from the disease, due to a modified condition of the anatomical structures at the seat of the local affection He also recognizes the neurotic element of the disease and unites both theories in his conception of the disease The local character of hay fever was strongly maintained by Hack, of Freiburg

Dr Harrison Allen, of Philadelphia, advocated the removal of obstructions, and thought that obstruction would be found in all cases

Mackenzie, of Baltimore, thinks the name "hay fever" objectionable for many reasons, and proposes the new appellation "coryza vasomotoria periodica" for the whole class of cases heretofore known as hay fever, rose cold, June cold, etc. Mackenzie also mentions a case in which reflected irritation from ovarian disease seemed to be a factor in the production of this affection. These observations are the testimony of reliable observers. There is no mistake as to their accuracy, and they go to show the variety of circumstances and diversity of conditions under which this curious disease is met. The more recent ideas in relation to hay fever find expression in the systematic and persistent treatment of the local manifestations or complications of the disease, which has for its object the removal of the obstruction to the patency of the nares, whatever may be the seat, or nature of the obstruction and the cauterization of the sensory areas by means of the galvano cautery carefully avoiding the olfactory region. The cautery, especially if preceded by the application of cocaine, is productive of but moderate local pain and its use has, in many cases, been followed by most gratifying results.

An example is the following case. A patient presented himself to Dr Knight last spring, in whom the disease had recurred each year for seven or eight years, in very severe form, obliging him either to remain in bed or go to Bethlehem. Treatment was commenced by the removal of obstruction on one side, and the free use of the galvano cautery in the anterior part of both nasal fossæ, while the very posterior parts were cauterized by chromic acid. This was deemed advisable on account of the possible danger of exciting inflammation in the middle ear by the use of the galvano cautery. The result was a most notable relief though not complete exemption from the symptoms. Instead of going to bed, or even staying in the house, or going to Bethlehem, the patient was enabled to go about his usual business. He says in a letter, "the nasal symptoms were so much lighter, that instead of constant flow of secretions and much sneezing, as in former years, this year I have only been troubled by working in the sun, or by very warm dry days, when the discharge would be copious for perhaps half the day, with no filling up of the nasal passages to prevent me from breathing through nasal passages at any time. Asthma has troubled me hardly any, a very marked improvement, as it has formerly compelled me to sit up many nights. On the whole I have been able to attend to my business every day, with comparative comfort most days, instead of the complete *prostration* by September 1st, of former years, and catarrhal cough lasting till winter. This year no cough to speak of and no asthma to care for." He also speaks of the complete relief from nasal catarrh during the early summer, which had been previously quite troublesome. Another thorough cauterization, especially in the posterior region, will doubtless be even more successful.

Correspondence with gentlemen who have heretofore spoken most enthusiastically in regard to the use of cautery in these cases, shows that the past season's work confirms them in their belief that at least a large proportion of cases can be cured, or radically relieved in this way. Dr Mackenzie still insists on the importance of specific treatment of the neurosis as well as local treatment of the nose, and Dr Roe still maintains the essentially local nature of the disease and its required treatment. Dr Sajous thinks that superficial cautery, as formerly supposed by him, may not be sufficient in all cases, but that some, especially those with markedly nervous character, may require deep destruction of tissue.

We undoubtedly owe our patients who suffer severely from this disease, a trial of galvano cautery, all serious obstruction having been previously removed.

DR LANGMAID stated that his experience had coincided almost completely with that so clearly described by Dr Knight, and he felt quite in the same way in regard to the disease. It is always important to discover the *cause* before instituting any form of treatment. It is a source of surprise that some practitioners discover such a large number of cases of hay fever. In a large hospital practice in diseases of the throat, there occurred last year but one (probable) case of hay fever. This year thus far, not a single case has appeared in the hospital clinic. In private practice the number of cases is quite considerable, and does not materially differ from the reports of other specialists. The disease is evidently to be regarded as a neurosis, and corresponds in all essential particulars to the observations of Mackenzie and Beard. A simple coryza may reappear periodically, and be produced by some cause which we cannot discover, but this is not necessarily hay fever. In hay fever there is always, either at the time of the attack or previously, obstruction of one or both nostrils, and no method of treatment can result in a permanent cure until this obstruction is removed. This must be done completely and thoroughly in order to be of more than transitory benefit. We are not prepared to say that a person with no obstruction in either nostril cannot have hay fever, but such cases must be extremely rare. The favorite theory of some specialists is that hay fever is due to some irritation of the "*sensitive areas*" within the nostril. These "areas" may be demonstrated by reducing the vascularity of the mucous membrane by means of cocaine, when many vascular points will still be visible. These are the "sensitive areas." They are very numerous and cannot be treated except by very extensive methods.

If the obstructive nostril is to be made patent, the first thing to decide, is the means to be employed for this object. Of all agents at our command, the galvano cautery is undoubtedly the best. The ecraseur, or cold loop, is unquestionably the safer. The chemical caustics, chromic or acetic acids, are not satisfactory. We are not yet prepared to apply so severe an agent as the galvano cautery to the surface of the entire nasal cavity. The present methods of treatment are doubtless better calculated to relieve this distressing malady than those of former years, and will probably be of great service in very many cases, while some will still prove refractory to any known mode of procedure. The galvano cautery is a means too severe to be employed in light or temporary cases. We are not at present inclined to sear the entire nasal mucous membrane in the free interval of a case of slight, or even moderate severity. The whole question of the applicability of galvano caustic treatment to the majority of cases of hay fever is still *sub judice*. In the meantime, we must not lose sight of the neurotic element in the disease; we must look at the general condition of the patient, his constitutional tendencies, etc. Our information will be more advanced by observation of large numbers of cases than by any prescribed plan of treatment. One of the most remarkable phenomena attending the disease is the development of the neurosis at the seashore, and its lack of development at Bethlehem.

Dr. De Blois said that he had seen few cases, but those were very interesting. Last summer he treated one patient by cauterizing the "sensitive areas" by means of chemical caustics, and the more the cautery was applied the greater number of "sensitive areas" were found, until both the operator and the patient were well nigh discouraged. A solution of cocaine was then applied with the happiest result, the relief being absolute. In this case, there was no obstruction previous to the paroxysm, and nothing to remove. After the attack had subsided, the nostril was entirely free from any obstruction or malformation. It is possible that the formation of cicatricial tissue throughout the nasal cavity might prevent hay fever by destroying the normal textures of the nostril.

Dr. F. C. Shattuck remarked that Dr. Langmaid had observed that obstruction of the nostril is almost always present. Is not ordinary coryza usually accompanied by obstruction of the nasal passages, and how does hay fever differ from a similar attack of ordinary nasal catarrh?

Dr. Langmaid responded that sensitiveness of the conjunctiva is a recognized feature of hay fever. There is a notable relief when the obstruction is removed. Given a case of acute catarrh, it is impossible to say whether the case is one of simple coryza or the specific autumnal catarrh.

Dr. Knight remarked that for this reason some writers have suggested another name for cases of undoubted hay fever, that is, for that form of catarrh which depends on the specific irritation produced by a particular cause. Especially irritant in so called hay fever is the pollen of the rag weed. Bethlehem affords immunity to many because this plant does not grow there.

There appears to be an unusual number of cases at present, owing to the fact that certain practitioners have relieved some forms of the disease by the more recent procedures, and as a consequence, many old and incurable cases present themselves and swell the number of actual cases to surprising figures. Cases of spasmodic catarrh are sometimes observed which are excited by unusual causes. A young gentleman who was married last January has had five severe attacks of bronchial asthma which invariably came on suddenly during sexual intercourse, and have been the cause of much suffering. The patient never had asthma before marriage, and never at all excepting that excited when cohabiting with his wife.

Dr. Langmaid stated that he had known patients in the Rangeley region and in Bethlehem to have a paroxysm during or after a south wind.

Dr. Prince stated that one practitioner has reported several cases of inflammation of the middle ear from the extension of the irritation caused by the actual cautery, along the canal of the Eustachian tube.

Dr. J. W. Farlow said that a certain firm of manufacturing druggists had advertised tablets of cocaine for the relief of hay fever, and he had tried the remedy, with the result of a greater degree of irritation than was caused by the hay fever. Cocaine and bismuth diminish the sensitiveness of the membrane to a moderate extent, but they do not alleviate the tendency to sneezing. Cocaine and fuller's earth relieve the distress caused by the exquisite sensitiveness of the mucous membrane, but do not in the least restrain the flow of secretion. Cocaine in solution is quite useless. For the asthmatic distress as well as for reducing the flow of secretion, belladonna is of great service. Acetic acid has been of no service in two cases in which it was carefully applied to the mucous membrane. The actual cautery seems the best agent for most cases. One factor in regard to hay fever seems to be overlooked by the most of those who treat these cases. The susceptibility of the same patient varies from year to year. Dr. Farlow employed the remedy so strongly recommended by the Rev. H. W. Beecher, and the patient escaped hay fever. At a later period, the same treatment was absolutely without avail in the case of same patient. The susceptibility varies according to the general health of the patient. When the general health is bad, the attacks of hay fever are usually severe.

Dr. Knight's experience confirms that of Dr. Farlow in respect to the curative power of cocaine tablets. In one case, the introduction of a single tablet was followed by the most distressing paroxysm of the entire season.

Dr. Farlow added that the cocaine tablets in the mouth afforded great relief to intolerable itching of the roof of the mouth and the palate, and this may contribute to the comfort of the patient.

Dr. Knight remarked that most gratifying results had been observed after the introduction of cocaine into the eye. The pain and lachrymation were quickly and completely relieved.

Dr. Blodgett spoke of a peculiar case which came under his observation, in which very severe attacks of asthma, with complete obstruction of the nares, lachrymation, itching of the mucous membrane, sneezing, and all the other discomforts of typical and severe paroxysmal catarrh, were induced in a young gentleman by drinking champagne. No other cause had ever produced the paroxysms in this patient, and recently the susceptibility to catarrh has become so modified that a moderate quantity of champagne can be drunk without the occurrence of a paroxysm.

Dr. Knight said that he had known of one similar case.

Dr. Edes stated that ipecacuanha is a substance which causes paroxysmal catarrh in some sensitive persons. Dr. Edes himself is made very uncomfortable by inhaling the smallest amount of this drug

Dr Langmaid added that green coffee has a similar effect upon many people, and that grocers are well aware of this peculiar property of coffee and usually seek to keep out of its danger Certain other substances also possess the power of exciting paroxysmal catarrh in those persons who are peculiarly sensitive, or who suffer from a personal idiosyncrasy in respect to these special irritants

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

Stated Meeting, October 14, 1885

The President, W W Johnston, M D,
in the Chair

Dr G N Acker read some

NOTES ON THE USE OF ANTIPYRIN IN FEVERS

(See p 571)

Dr King asked if Dr Acker knew the chemical constituents of antipyrin

Dr Acker had seen the formula, but could not now recall it

Dr S S Adams was glad Dr Acker had brought up this subject, for the profession in this city seem loath to try antipyrin He had been one of the first to use it here, and had been gratified with his experience He first tried it in a child æt 18 months, suffering with pneumonia A high temperature prevailed despite the use of quinine pushed to cinchonism The child was delirious and death seemed imminent At one o'clock in the afternoon the temperature was 104 6° F He ordered a solution of antipyrin, two grains to be given every hour until six had been taken At 5 30 the temperature was down to 99 5° F, and the respiration and pulse could be counted, a feat not possible four hours previous At 10 o'clock the temperature began to reascend, and was just as high the next day, but again responded to the same treatment Before the three doses were given a profuse sweating would set in Double catarrhal pneumonia supervened, and the child finally died of exhaustion

The second case, a girl of fifteen, had diphtheria Her temperature was 105° F, and she had been delirious several hours Twenty grains of antipyrin reduced the temperature two degrees, and restored the child to consciousness The next day, however, the delirium and fever were as great as before Antipyrin was not again tried, and the child died He had been called to this patient in an emergency, and the attending physician would not consent to any further use of antipyrin

Dr Magruder had no personal experience with the drug, and had come here this evening to learn about it He had been recently reading in the journals the experiences of others, and they spoke of it with but little favor It seems to have a pernicious effect upon the kidneys, and the poisoning is similar to that of carbolic acid

Dr McArdle had some little experience with antipyrin, and was not favorably impressed with it There was no doubt but that it would reduce temperature, but in many diseases such a reduction is of doubtful necessity, unless the patient is suffering from hyperpyrexia The speaker had recently used antipyrin in a case of typhoid fever, and he and the family were much alarmed at the exhaustion and depression following the use of ten grains of the drug in a child

Dr Marmion decried the use of a drug of which we do not know the chemical constituents

Dr Acker closed the debate by declaring that antipyrin is not a secret remedy, and that the chemical composition is given in the journals He did not agree with Dr McArdle as to the danger of antipyrin Depression due to the disease may sometimes be erroneously attributed to the effect of the drug As to its effect on the kidney, it is eliminated by that organ and a previously diseased kidney may suffer Whilst antipyrin does not have a permanent effect on the temperature, it lowers it gradually from day to day He had found it excellent in tuberculous fevers

Dr S B Lyon reported a case of

RUPTURE OF THE RECTUM AND PROLAPSE OF THE SMALL INTESTINE

(See Journal, Nov 14, p 541)

Dr Schaeffer asked if the rupture was within reach of the patient's finger

Dr Lyon said it was fully six inches beyond the anus He inferred that the patient had pulled down the bowel before inflicting the injury There was thinness of the walls in spots due to traumatism, but there was no evidence of ulceration

Dr Hamilton asked the condition of the rectum at the point of rupture

Dr Lyon said it looked something like a buttonhole The protruding small intestine was gangrenous

CHILD WEIGHING ONE POUND AND A QUARTER AT BIRTH

Dr J F Hartigan presented a child three years and nine months old, weighing eighteen pounds, who at birth weighed only *one pound and a quarter* Dr Brengle, of Winchester, Ill, was the attending physician Three years ago, after the parents' removal to Washington, Dr Hartigan first saw the little girl It weighed between four and five pounds, and has since suffered from several attacks of spurious hydrocephalus, diarrhœa, and dysentery, but now enjoyed good health He was not aware of a parallel case, and wished to make it a matter of record The mother has one other child, six years old, healthy, and well developed, both were born at term

Dr Hartigan also presented recent photographs of a case of

CONGENITAL MALFORMATION OF LEFT KNEE-JOINT, OR ANTERIOR FLEXION OF LEG UPON THE THIGH,

which he exhibited to the Society six years ago The leg and foot could not be moved backwards after the tibia and fibula were in the axis of the femur, but at the child's volition, or with the gentlest pressure, the leg and foot bent forward against the quadriceps, the sole of the foot presenting upwards, the toes pointing into the groin, no indication of a patella could be found The child was under treatment five months, is now nearly seven years old, and it is impossible to tell which limb was deformed The patella is fully developed, and posterior flexion complete

DR HARTIGAN also presented a

SECTION OF FRONTAL BONE SHOWING CONTUSION AND BLOOD EXTRAVASATION INTO THE DIPLOIC STRUCTURE

The patient was a white man 35 years old He was struck with a loaded cane, August 22, 1885 A day or two afterwards he complained of deafness, confusion of vision and intellect, dysphagia, and other symptoms of tetanus The first convulsion occurred four days before his death, the twenty second day of the injury The autopsy showed the wound to be practically healed, but the bone underneath was denuded of periosteum, and there was congestion of the brain and its membranes

CHICAGO MEDICAL SOCIETY

Stated Meeting, November 4th, 1885

THE PRESIDENT, C T PARKES, M D, IN THE CHAIR

DR HENRY T BYFORD read a paper on

NERVOUS PAROXYSM, OR SYNCOPE

(See p 566)

DR J H ETHERIDGE asked Dr Byford what he would think of the use of hypodermic injections of digitalis under such circumstances, if any one has ever used it in cases of acute syncope, and why it would not be a good thing to make use of?

DR BYFORD said In these attacks I think digitalis would perhaps hardly be the remedy, for the condition is one of reflex irritation, I think I think it is a case of spasmodic contraction of the heart, and that any nervous symptoms are the result of a contraction of the arterioles of the brain rather than a falling off in the force of the circulation, and that stimulants, such as digitalis, would be liable to do harm This class of cases I have considered really attacks of convulsions, in which consciousness is not lost, sometimes there is a partial loss of consciousness, spasmodic contraction of the diaphragm, the breath almost entirely cut off, and I suppose the same spasmodic condition of the heart, and sometimes, and in some of the cases referred to, there was rigidity of the muscles, one patient trying to throw herself out of bed In real syncope the attacks involve loss of consciousness and relaxation of the muscles Dr N Newkirk has informed me that he formerly treated cases of malaria wherein the onset was marked by such symptoms as have been described These cases, occurring in a malarial district, were characterized by a foul stomach, due to the presence of acrid ingesta Free vomiting, spontaneous or induced nearly always gave relief

DR FRANKLIN H MARTIN read a paper on

PALATABLE THERAPEUTICS

He exhibited specimens of drugs manufactured in the form of pills, capsules, granular salts, elixirs, etc , either tasteless or palatable Dr Martin claimed that many of the greatest improvements in therapeutics have been gleaned from the field of charlatanism Electricity, massage and the "Swedish movement" have been rescued from this domain, and placed upon a legitimate and scientific basis The author claimed that homœopathic medication had three valuable characteristics, palatability, harmlessness, and inexpensiveness to the patients This combination, absolutely without medical merit, accounts for the so called success of homœopathy If we can secure palatability to our remedies, we will do much to overcome the popular aversion to our medicinal preparations Since 1817, when morphia was first isolated as an alkaloid, a great advance has been made in discovering the active principles of drugs Of the alkaloids there have now been discovered twenty two, with actions similar to the parent drugs They are manufactured in pill form, and are more easy of administration than the disagreeable preparations from the crude drugs Twenty glucosides have been similarly isolated and manufactured While this branch of pharmaceutical chemistry is yet in its infancy, we can confidently look forward to the day when the active principles of all the organic drugs will have been discovered, isolated, and manufactured into palatable preparations To day, the salts of various metals, solid extracts, the bromides and iodides, chloral hydrates and the oils can all be administered in capsules Dr Martin claimed to be the first to suggest the enclosing in capsules solutions of chloral in oil We can summarize the means by which we can make drugs palatable as follows The administration of alkaloids, solid extracts, crude drugs of small bulk, and various salts, in capsules or gelatine or sugar coated pills the administration of glucosides and neutral principles in gelatine or sugar coated granules, the administration of tasteless liquids in water, the administration of oils, oleo resins, oleates and drugs soluble in oil in soft elastic gelatine capsules, and the administration of medicines by the hypodermic syringe, suppositories and inunctions

DR J J M ANGLAR said that the object of the paper was certainly commendable He thought the latter part of the paper is valuable, where is urged upon us the necessity of discarding these nauseating remedies and availing ourselves of the science of chemistry, and we should take the admonition to ourselves

DR R TILLEY thought that few experienced men would dare to give iodide of potassium in large doses in capsules He always recommends large quantities of water to be taken in connection with iodide of potassium With reference to arsenic and antimony, we are told they can be administered in solutions in teaspoonful doses We all know that, but he questioned whether it is desirable He has always recommended the administration of arsenic in large quantities of water, and also tartar emetic As to the administration of permanganate of potassium in capsule form, he has known it to be so administered in two or three cases, with very severe pain attending the administration, but he has never administered it in that way himself

Dr. J. H. Etheridge said that he thought the paper very timely, it was full of a great many good points, but he thought there is an objection to the administration of concentrated remedies, especially these alkaloids, in gelatine covers and sugar-coated pills. It sometimes happens that after they have been administered they do not dissolve, and then we get a terrific effect by a half dozen dissolving at once, and in some cases they do not dissolve at all. He recalled a case in which it was decided to give a child thirty-five grains of quinine, seven capsules were administered and three of them passed the rectum untouched. They may not always promptly dissolve, and the consequence is we run a very great risk of injuring our patients.

Dr. A. H. Foster thought it time that we should begin giving medicine more palatably by giving it in smaller doses, and we will often get a primary and not a secondary effect from our remedies, and will not get that terrible perturbation that we would if we gave large doses. The point is, that we can and do have to study the palatability of our remedies. Another point is, that we have learned to simplify our remedies.

Dr. D. A. K. Steele said that in reference to some of the objections that may be urged against palatable remedies, the objection to pills is their insolubility, the fact that they pass through the alimentary canals unchanged. He has repeatedly found them undissolved, he has found that in administering quinine in that form he did not get the desired result. He thought the author made a mistake in giving too little credit to our pharmacists for the advances made in pharmacy in late years, and that the essential point of the paper is the fact that it impresses upon us the importance of giving less medicine and of giving it in a more palatable form.

Dr. R. Tilley said that Dr. Foster seemed to imply that we get our tendency to give small doses from the homœpaths. I take the opportunity of saying that in the large hospitals in Paris and London, they have placed patients with acute affections side by side, and to the one they have given all the medicine they have thought necessary, and to the other they have given careful attention and nursing, with the suggestions a practical physician would give, and there has been practically no difference in the result in the two classes of cases. Experience has taught us to give in certain cases, or in many cases, simply a teaspoonful of water occasionally and that is very important, especially in children, a teaspoon of water is frequently all that the child needs, although few people seem to realize the fact.

Dr. Doering objected to crediting homœpathy with what science and chemistry has accomplished. Take the alkaloids, almost all have been discovered in Germany, where homœopathy cannot live at all—where they have not a single chair in any university. Palatable medicines are simply the natural result of the advance of the science of medicine, chemistry and pharmacy.

Dr. C. T. Parkes recalled one case which illustrates the fact that palatable medicines are not always innocent and harmless. He was called to make a post-mortem examination on a boy 6 years old. Upon opening the abdomen he found in the abdominal cavity a round mass, and upon examination of this round mass it was found to be a sugar coated quinine pill. These were also found in the vermiform appendix and had ulcerated through into the abdominal cavity.

Dr. F. H. Martin closed the discussion by saying that in regard to the iodide of potassium, Dr. Tilley mentioned that he always gives iodide of potassium diluted in large quantities of water. When I was considering iodide of potash, I recalled the experience that I had myself in administering it. I diluted the drug after getting it into the stomach, that is, I gave the patient water after he swallowed the capsule, and he experienced no trouble. In regard to permanganate of potash, it is not necessary to give it in capsules—the oleate of manganese can be used by inunction, or the permanganate of potash be given in distilled water. In regard to the solubility of these pills, any of the best pills will dissolve in water in such a way that the remedies will become free in three minutes. If a capsule or pill of morphine be put in cold water, you can taste the morphia after it has been in the water not longer than two minutes, and you can readily see that by putting the pill into the stomach the gastric fluid, the temperature, and the muscular action, would soon cause its solution. In regard to quinine pills, some time ago I believe that medicine was put up with sulphuric acid, and it lost strength and became almost inert, but now they put quinine up in excipients that will dissolve readily, and also, loosely in flexible capsules.

FOREIGN CORRESPONDENCE.

LETTER FROM PARIS.

(FROM OUR OWN CORRESPONDENT.)

Does an Opacified Lens ever Recover Transparency?—Cure of Cataract—Medical Treatment of Cataract—Eye-dressings after Cataract-Operations—Removal of a Mesenteric Lipoma.

Since the remotest period of medical history up to the present time the question as to whether a crystalline lens opacified can ever resume its transparency, and whether it is possible to cure a cataract by medicinal means, has occupied the attention of medical men. In a very interesting paper on the medical treatment of cataract, Dr. Galezowski replies to the question in the following terms: "The fibres of the crystalline lens become opaque only because they had undergone the process of degeneration as much in their envelope as in their contents, and it is consequently impossible that the lens should resume its former vitality and transparency." The resolution of an opaque lens has sometimes been observed, but this is effected only by the softening and the dissolution or absorption of the crystalline fibres, and the disappearance of the lens itself. The spontaneous cure of cataracts by luxation is not rare, numerous examples have been recorded in works on the subject. Sometimes it is the result of a blow on the head, or on the orbit, sometimes it may proceed from a fall from a height, or it may happen without any appreciable cause In all these cases, the cataractous lens is luxated, its ligament is ruptured, and the cataract falls into the vitreous body This spontaneous depression of the cataract may sometimes be really salutary and persistent, as are often persistent and durable as regards results, the operations for cataract by depression

Apropos of this subject, the late Dr Desmarres, the well-known oculist, relates the following case in one of his works "A pious old lady was affected with cataract in both eyes, but would not submit to an operation She could hardly see to conduct herself, when one day in prostrating herself before an altar in a church, she suddenly recovered her sight 'It is a true miracle,' she cried" The cataract was luxated and Desmarres, on examining the eyes, was convinced of the fact But the spontaneous luxation of the crystalline lens is a simple accident, and no one can count upon it for a cure Moreover, the depression of a crystalline lens may be followed by loss of vision, either immediately or later on, as this quite frequently happens in operations for cataract by depression

The medical treatment for cataract may have for its object to dissolve a cataract, either in dissolving it completely or in arresting its progress and evolution, but as has been shown that this is simply impossible, and all that has been related about the success of such treatment emanates generally from quacks or from practitioners who have faith in their particular nostrums, it must therefore be admitted that we possess no means to arrest the progress of cataract, and still less to dissolve it The only resource we have at our disposal against cataract is, surgical operation

If we are powerless to cure spontaneous cortical cataracts of a constitutional character, we cannot do otherwise than make exceptions in favor of cataracts of traumatic origin In general, traumatic cataracts require the most energetic and at the same time the most careful treatment, particularly during the first few days after the accident Should the cornea, iris, and crystalline lens be wounded, and if the iris protrudes into the wound of the cornea, the former will have to be excised It is here that the repeated application of leeches to the temple will be found most useful, after which the alternate instillation of eserine and atropine drops may be employed with advantage, administering at the same time mercury internally and externally If the wound of the capsule be healed, and the lens remain transparent, the application of atropine or the effecting of a simple artificial pupil, the vision may be completely reestablished without its being necessary to extract the cataract Traumatic cataracts may, however, develop with such rapidity that surgical interference will become indispensable, if the inflammatory accidents are not arrested by an energetic antiphlogistic treatment

In connection with the treatment of cataract I may mention that the same author lately read a note at the Academy of Medicine, on a plan adopted by him for dressing the eye after operations for cataract He reminded the Academy that about three years ago, he was the first to condemn the German method of extracting cataract, and to revert to the principles of the French school, that is to say, to the operation without iridectomy This mode of operation gave him excellent results, and he had no doubt but that it will soon become generally adopted But the author suggested that the success of the operation depended particularly upon the dressing employed after the operation, as suppuration of the cornea, which sometimes occurs, results from the infection of the wound in contact with the tears, which contain microbes To prevent this contact and to maintain the coaptation of the wound, Dr Galezowski covers the latter with large round pieces of adhesive gelatine combined with cocaine and corrosive sublimate This preparation dissolves the tears only at the end of eight or fourteen hours, according to its thickness, which permits the wound to heal by the first intention Twenty-four hours after, no trace whatever of the gelatine is found in the eye, and all danger of infection of the wound is removed

At the same meeting of the Academy of Medicine, Terrillon presented a patient from whom he had removed an abdominal tumor which gave the abdomen a circumference of 130 centimetres After the operation of laparotomy it was discovered that the tumor was an enormous lipoma included in the mesentery This lipoma was enucleated, which occupied one hour and a half, and the tumor was found to weigh fifty-seven pounds The blood vessels were tied, the abdomen was sutured, and the patient sent to his bed The operation succeeded very well, and the case progressed favorably, no peritoneal reaction, or any other bad symptom, having taken place

A B

DOMESTIC CORRESPONDENCE

LETTER FROM PHILDELPHIA

(FROM OUR OWN CORRESPONDENT)

The College of Physicians—Treatment of Hay Fever—Treatment of Sunstroke—The Academy of Surgery—Hydronaphthol—Substitute for "Buried Sutures"—Instrument for Fractured Patella—Case of Cholecystotomy—Laparotomy—Semi-Annual Meeting of the Pathological Society—Curious Picture of first Ovariotomy in Hong-Kong—The Code

Since my last letter we have had a number of interesting medical discussions in this city One of them was before the College of Physicians, where Dr Da Costa read a paper on the treatment of hay fever by cocaine The result of his experience is, that cocaine is a valuable addition to our means of treating this troublesome affection, but that its effect is palliative, not curative In the discussion which followed, Dr Harrison Allen explained the varying susceptibility to improvement on the part of different individuals by a peculiarity of the erectile tissue of the nose Thus, cocaine cannot be expected to give relief in the hay fever of persons who have little erectile property in the mucous membrane of the nose, while it will give relief in cases in which the erectile property is largely concerned in the trouble, which is in the majority of the cases Dr H C Wood called attention to the investigations of Dr Lyons, of Detroit, who has shown that there are at least two alkaloids in the coca leaf, the absence of one of which may cause failure of the commercial preparations Another valuable paper read was by Dr Orville Horwitz, on the treatment of sunstroke and heat exhaustion This paper gave the result of the treatment of fifteen cases of this disease in the Pennsylvania Hospital during the past summer The essential features of this consisted in the use of cold, and antipyrine for the high temperature, and of musk, ammonia, ether hypodermically, and tincture of digitalis, for the exhaustion Dr Wood remarked that the use of musk was new, while that of antipyrine was not, as it had been used in New York hospitals for this purpose before He said that the ambulance surgeons carried antipyrine with them to give it once, and suggested that they might well cary ice also, since in case of heat stroke it is of so great importance to begin the treatment immediately upon the occurrence of the attack

At the last meeting of the Academy of Surgery, Dr Levis advocated the claims of hydronaphthol as an antiseptic agent He also described a new form of suture to take the place of buried sutures This suture is made by opening a wound wide, and passing a silver wire from the middle line of the bottom into the tissue, passing up toward the edge of the incision, but coming out of the flap inside at a moderate distance from the point at which it entered, so as to take up a mass of the tissue at the bottom of the wound The other end of the wire is threaded on another needle, and passed in a similar manner into and out of the tissue of the other flap The wires are then crossed and each needle is passed through the whole of the opposite flap so as to emerge through the skin at some distance from the edge of the in-incision When drawn upon these sutures approximate the bottom of the wound The ends are not fastened, and a separate suture is used to close the edges of the incision Dr Gross confirmed the good opinion expressed by Dr Levis in regard to this suture, saying that he had used it very successfully

At this meeting Dr Morton showed a most ingenious steel rod, with sliding shoulders attached, which he uses for the cure of fracture of the patella The rod is bored through the two fragments, the shoulders are slipped up until they press the fragments together, and then each is fastened in place by a screw The rod is made in two sections, which screw together in the middle like two pieces of a pocket catheter, so that they can be separated and drawn out at opposite sides, thus avoiding the risk of drawing septic material into the wound, which would be unavoidable if the whole were in one piece The irritation caused by this treatment of fracture of the patella, is insignificant, and it is much preferable to Malgaigne's hooks

At the same meeting of the Academy, Dr Keen reported an operation of cholecystotomy, in which, after having felt fully convinced that he had touched a gall stone with the needle of a hypodermic syringe, it turned out that this could not possibly have been the case, as the gall-bladder was in an unnatural position, lying transversely to the usual position, and far back, being covered by a twisted and peculiarly shaped left lobe, which itself was mistaken for the usual tumor of the gall bladder After cutting down into the abdomen the true relation of the parts was discovered, and the gall stone was found It was so deeply situated and so tightly enclosed in the gall bladder, that it was removed with the greatest difficulty Unfortunately the patient succumbed to the shock of the operation Dr F H Gross exhibited a most interesting specimen of cancer of the transverse and descending colon, which had caused sudden obstruction of the bowels, and for which the abdomen had been opened, naturally only to lead to the discovery that nothing could be done for the patient's relief

At the recent semi annual meeting of the Pathological Society, the address was delivered by Dr J Collins Warren, of Boston, who took for his subject "A comparison of the changes in arteries after ligature and in the ductus arteriosus and umbilical arteries after birth" The lecture was very interesting, and was followed by an entertainment given to Dr Warren, at the St George Hotel

At the last meeting of the College of Physicians, there was presented a most curious picture, purporting to represent the first ovariotomy performed in Hong-Kong The operator was Miss Reifsnyder, a graduate of the Woman's Medical College of this city, and the picture was made by a native artist It represents the patient as seated in a large arm chair, in an open pavilion with a huge pendulous tumor looking like a goitre hanging from the lower part of the sternum Her middle is decently covered with a sort of skirt The operator wears a Derby hat, and a French dress with a long and elaborate train, and she has on high heeled shoes She stands with one foot on the ground and a knee upon the knee of her patient Her knife is an ordinary carver A few Chinese assistants stand around, and there is a very English looking man near a counter, above which is seen a row of shelves on which are bottles and jars, while one of the shelves is filled with skulls and other bones Two most unmistakable Englishmen, with their hats on, stand outside the railing of the pavilion, leaning upon it and looking on at the strange spectacle, evidently mere passers by who have stopped to gratify their curiosity The whole scene seems to lie in the open air and to be of the most public character A printed explanation occupies the open space above the heads of the spectators The whole is a most *naive* representation of the remarkable operation, which I am happy to say proved a success

I will close my letter with a single word, not meant to be controversial, about the Medical Congress When conversing with a distinguished medical man of this city recently, he said to me that he thought it had not been made plain enough to the readers of the JOURNAL that the "New Code" has nothing to do with the attitude which has been assumed here in regard to the Congress This city, where the "Old

Code" may, in a sense, be said to have had its birth, is strongly attached to it And however unnecessary it may be for those who do not need it, it is believed here to be of great value as a bulwark against irregularities to which the frailty of human nature makes many liable The "Old Code" has been too useful to the whole profession in this country to be treated with disrespect in this city, which is nothing if not conservative C W D

COCAINE IN SURGERY—PERSONAL EXPERIENCE OF ITS EFFECTS

To THE EDITOR OF THE JOURNAL

Dear Sir —As a contribution to the aggregate of experience from which the value and application of cocaine is to be determined, I am able to give your readers a statement of its action upon myself while submitting to the removal of a lipoma The tumor was situated on the nape of the neck, and with the outlying integument formed a body about the size of a closed fist Thirty minims of water containing in solution gr j ⅓ of cocaine hydrochlorate were injected at six points over and about the circumference of the growth In addition to this, a mixture of ice and salt was applied for about two minutes after the injection of the cocaine In about the same time the integument exhibited signs of freezing, whereupon the refrigerant was removed and an incision about five inches long was painlessly made

Dr G W Jenkins, of Kilbourn City, Wis, assisted by Drs Wilson and Bryant, of this city, now found much difficulty in defining the tumor, owing to its vascularity, depth, and entire absence of investing membrane These conditions prolonged the operation to fully half an hour, and until a depth of quite two inches was reached (beyond which the cocaine could not be expected to act) there was no sense of the tedious dissection or any pain from the introduction of the fine sutures with which the wound was closed The effects of the ice had of course subsided in a few moments, and at no time could have extended below the integument In two minutes from the injection of the cocaine a decided sense of mental exaltation was realized, quite similar to the incipient stage of systemic anæsthesia from chloroform, and attended with an almost irrepressible tendency to loquaciousness This symptom may have been intensified by the contiguousness of the brain, but did not in the least impair perfect consciousness of all surroundings and necessity of self control

As no evidence equals that of personal experience, our reward for this trial was most satisfactory and convincing, proving that for a large class of minor surgical operations we have in cocaine an agent of inestimable value, and verifying its right to be termed the "angel of anæsthesia"

H C MARKHAM, M D

Independence, Ia, Oct 27, 1885

"WORDS AND THEIR USES

To THE EDITOR OF THE JOURNAL

Dear Sir —In a very excellent editorial on "Latent Talent in the Profession," in your JOURNAL for October 17th, you refer to the use of the word "diagnose" as offensive I beg to call your attention to the fact that Webster gives the words "diagnose" and "diagnosticate" as synonymous, and better authority could hardly be desired It is true that the form "diagnosticate" is more in accord with the Greek *διαγνωστικός*, from which it is derived, but "diagnosis" may as well be considered as derived from *διαγνωσις*, and it certainly has the merit of brevity It would seem to be a most useless piece of work to attempt to check this tendency to brevity in speech in the present age, it certainly would, where the word of *three* syllables can correctly take the place of *five*, as in the present instance

Very sincerely yours,

JAS E PILCHER, M D,
Ass't Surgeon U S Army

Fort Custer, Montana, Oct 30, 1885

[We have received several communications, verbal and written, concerning our objections in the editorial mentioned to "diagnose" for "diagnosticate," "allude" for "mention," "apt" for "likely" or "liable," and even to "cases (or "instances") where," for "cases in which"

1 It must be very evident that "diagnostic" is derived from the first of the Greek substances named above, and the very fact that this adjective ends in *tic*, instead of being *diagnosive*, is an argument in favor of "diagnosticate," since "diagnostic" is used both as an adjective and as the participle of "diagnosticate" We do not object to "diagnose" because it is short, on the contrary, that is the only thing in favor of the word The fact that Webster uses "diagnose" and "diagnosticate" as synonymous amounts to almost nothing in the way of supporting the former as a correct word Webster found that the words were used to express the same idea, and hence incorporated both in his very objectionable Dictionary Dr Robley Dunglison, who was Webster's peer in linguistics—certainly in Greek—gives "diagnose" as *sometimes* used for "diagnosticate," which clearly implies that he considered it objectionable Even if Webster could be regarded an equal authority with Worcester (which is not the case), the fact that he gives "diagnose" and "diagnosticate" as synonymous is offset by the fact that Worcester does not give "diagnose" at all We very seldom find *diagnosiren* used by German writers, though *diagnosticiren* is common In French *diagnoser* is extremely rare, and is not given in the lexicons, while *diagnostiquer* is the correct form In Italian the word is *diagnosticare*, though only recently used, and not generally, if at all, given in the lexicons

We have then Worcester, Dunglison, analogy and etymology against Webster It has been said that usage favors "diagnose" But usage is not sufficient authority for a word which has no right to existence Usage favors the verbs "to ligate" and "to ligature," there is no good authority for these words, and there is for "tie," which will always answer the purpose Common usage does not justify "post mortem" for "post-mortem examinations," "autopsy," or "necropsy," the last two being preferable because shorter

But "post-mortem," and even "a post mortem," are very frequently used by good writers

Webster—and other lexicographers for that matter—gives "hypodermic" as the correct form, and does not even mention "hypodermatic," which is unquestionably correct

2 The use of "allude" for "mention" cannot be justified on any grounds In fact, the words are antonomous, not synonymous To *allude* to a thing is to *suggest* it, to *imply* it, *hint at* it, *refer to* it, to *intimate* it or *insinuate* it, to *mention* is to *specify*, to *demonstrate*, to *declare*, to *state* As has been shown, what is called "common usage" is not an infallible criterion as to correct usage of words "Allude" and "mention are used synonymously by some very excellent writers both in America and in Great Britain In the same way

4 "Apt" is frequently used for "likely" and "liable" "Apt" means *fit*, *apposite*, *clever*, *ready*, *appropriate*, or *prompt* A boy may be apt to learn (have sufficient intelligence and quickness to learn), but so lazy that it is not likely that he will learn An intoxicated person is not only *likely* to fall (will *probably* fall), but is *apt* to fall A good chemist is *apt* to make a good analysis, but if he has no apparatus it is not *likely* that he will make one at all Nor are "likely" and 'liable" synonymous terms "Liable" really means *amenable*, *dependent*, *answerable*, *responsible*, etc And to show how critics will often fall into serious errors, one of our best writers, a good English critic, and a learned man, gives "likely" and "liable" as synonyms of "apt," but refers "liable" to 'amenable," and "likely" to "probable," in his work on "Synonyms and Antonyms," and does not give "apt" under either one! A man who embarks in a business of which he has no knowledge is both *apt* and *likely* to fail, it is *likely* that he will lose money, if he loses money belonging to some other person, which he should not have used, he is *liable* to punishment, and if he cannot make a good defence it is *likely* that he will be punished

4 The use of "cases where" or "instances where" for "cases in which" (or the use of "instance" for "case") in medical writing, and in referring to a *Case* (patient), is so utterly wrong and inexcusable—and so clearly so—that it need not be discussed —Ed]

ASSOCIATION ITEMS

INFORMATION OF IMPORTANCE TO ALL MEMBERS OF THE AMERICAN MEDICAL ASSOCIATION

Membership —Every one who attends an annual meeting of the Association as a delegate pays at that time five dollars, and thenceforward becomes a Permanent Member He continues as such as long as he remains in good standing in the body from which he was originally sent as a delegate As a Permanent Member, he must pay *Five Dollars Annually*, when notified by the Treasurer, whether he attends the meetings of the Association or not Payment of annual dues entitles him to receive the weekly Journal of the Association for one year

Members by Application are such as have not become Permanent Members in the manner above indicated, but apply to the Treasurer for membership, forwarding at the same time to him five dollars and the certificate of the President and Secretary of their State or local society, that they are in good standing in such society They pay five dollars annually thereafter, when notified by the Treasurer Members by application can join the Association at any time, and they receive regularly the weekly Journal

When Dues are Payable —The annual dues from Permanent Members are payable to the Treasurer at the time of the annual meeting of the Association, or immediately thereafter The payment entitles the member to receive the Journal for one year from the following July Payment for 1885, for example, entitles the member to the Journal from July, 1885, to June, 1886, inclusive

As some of the members have not yet forwarded to the Treasurer their dues for 1885, they are urgently requested to do so at an early day Having entered upon another year of membership, they are morally and legally responsible to the Association for the payment of their annual dues, having already received for three months of the new year—1885—the Journal of the Association

Subscriptions to the Journal, from those who are not members of the Association, should be forwarded to the office of publication, 65 Randolph Street, Chicago, and not to the Treasurer, but *all payments of annual dues must be forwarded to the Treasurer, Lock Box 1274, Philadelphia*

Deaths —When a member of the Association, who is in regular receipt of the Journal, dies, his family or other representatives are requested to inform the Treasurer at once of the fact

Payment of Dues for Previous Years —As a few members of the Association are still in arrears for payment of dues for 1883 and 1884, they are requested to forward at once to the Treasurer the amounts for which they are indebted to the Association

Transactions of the Association —These annual volumes, thirty-three in number, to 1882 inclusive, may still be obtained, with few exceptions, from the Treasurer, at reduced prices The Index to these volumes will be forwarded on receipt of *One Dollar* An opportunity is thus afforded to complete sets of these valuable publications, or to obtain important papers and works which are daily becoming scarce

Richard J Dunglison, M D , *Treasurer*
Lock Box 1274, Philadelphia, Pa

NINTH INTERNATIONAL MEDICAL CONGRESS, WASHINGTON D C 1887

[The following are some of the more important Rules adopted relating to the preliminary organization of the Congress —Ed]

1 The Congress shall consist of members of the regular profession of medicine, who shall have inscribed their names on the register and shall have taken out their tickets of admission, and of such other

scientific men as the Executive Committee of the Congress may see fit to admit

2 The dues for members of the Congress shall be ten dollars each for members residing in the United States

There shall be no dues for members residing in foreign countries

Each member of the Congress shall be entitled to receive a copy of the "Transactions" for 1887

3 The Congress shall be divided as follows, into seventeen Sections

I General Medicine
II General Surgery
III Military and Naval Surgery
IV Obstetrics
V Gynæcology
VI Therapeutics and Materia Medica
VII Anatomy
VIII Physiology
IX Pathology
X Diseases of Children
XI Ophthalmology
XII Otology and Laryngology
XIII Dermatology and Syphilis
XIV Public and International Hygiene
XV Collective Investigation, Nomenclature, Vital Statistics, and Climatology
XVI Psychological Medicine and Diseases of the Nervous System
XVII Dental and Oral Surgery

4 The General Meetings of the Congress shall be for the transaction of business and for addresses and communications of general scientific interest

* * * * * * * *

8 The official languages of the Congress shall be English, French, and German

In the meetings of the Sections, no member shall be allowed to speak for more than ten minutes, with the exceptions of the readers of papers and those who introduce subjects for discussion, who may each occupy twenty minutes

9 The rules and programmes shall be published in English, French, and German

Each paper and address shall be printed in the "Transactions" in the language in which it was presented, and preliminary abstracts of papers and addresses also shall be printed, each in the language in which it is to be delivered

All discussions shall be printed in English

10 The President of the Congress, the Secretary-General, the Treasurer, the Chairman of the Finance Committee, and the Presidents of the Sections, shall together constitute an Executive Committee of the Congress, which Committee shall direct the business of the Congress, shall authorize all expenditures for the immediate purposes of the Congress, shall supervise and audit the accounts of the Treasurer, and shall fill all vacancies in the offices of the Congress and of the Sections This Committee shall have power to add to its membership, but the total number of members shall not exceed thirty A number equal to one-third of the members of the Committee shall constitute a quorum for the transaction of business

11 The Officers of the Congress shall be a President, Vice-Presidents, a Secretary-General, four Associate Secretaries, one of whom shall be the French Secretary, and one of whom shall be the German Secretary, a Treasurer, and the Chairman of the Finance Committee

12 The officers of each Section shall be a President, Vice-Presidents, Secretaries, and a Council

13 The officers of the Congress and the officers of the Sections shall be nominated to the Congress at the opening of its first session

MISCELLANEOUS.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY, FROM NOVEMBER 7 1885 TO NOVEMBER 13 1885

Col E I Baily, Surgeon, relieved from duty as attending surgeon, San Francisco, Cal , and ordered for duty as Medical Director, Div of the Pacific and Dept of California

Lt Col Basil Norris, Surgeon, ordered for duty as Medical Director, Dept of the Columbia

Maj J C McKee, Surgeon, ordered for duty as attending surgeon and examiner of recruits, Boston, Mass

Lt Col E P Vollum, Surgeon, ordered for duty as Medical Director, Dept of Texas

Lt Col J R Smith, Surgeon, ordered for duty as attending Surgeon, New York City, N Y

Lt Col R H Alexander, Surgeon, ordered for duty as Medical Director, Dept Arizona (S O 260, A G O, Nov 11, 1885)

Capt John J Kam, Asst Surgeon, ordered for duty as post surgeon, Ft Ringgold, Tex (S O 141, Dept Texas, Nov 4, 1885)

Capt R G Ebert, Asst Surgeon, ordered from Camp Grant, Riverside Park, New York City, to Ft Hamilton, New York Harbor, for duty (S O 237, Dept East, Nov 5, 1885)

First Lieut G E Bushnell, Asst Surgeon, assigned to duty at Camp Grant, Riverside Park, New York City (S O 237, Dept East, Nov 5, 1885)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING NOVEMBER 14, 1885

J S Sayre, Asst Surgeon, detached from Naval Hospital, Mare Island, and ordered to the "Omaha"

W S Dixon, Surgeon, detached from Coast Survey Str "Hassler" upon reporting of his relief, P A Surgeon D O Lewis, and wait orders

D O Lewis P A Surgeon, detached from Naval Rendezvous, San Francisco, and ordered to relieve W S Dixon, Str "Hassler"

J S Dungan, Medical Director, ordered to Naval Rendezvous, San Francisco, to relieve P A Surgeon D O Lewis

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE WEEK ENDED NOVEMBER 14 1885

Wheeler, W A , Passed Asst Surgeon, to proceed to Ontario, Canada, on Special duty Nov 11, 1885

Urquhart, F M , Passed Asst Surgeon, to proceed to Baltimore, Md , with Str "Manhattan," and then rejoin station Nov 12, 1885

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol V CHICAGO, NOVEMBER 28, 1885 No 22

ORIGINAL LECTURES

THE FUTURE OF THERAPEUTICS

The Annual Address to the Detroit Medical and Library Association[1]

BY DAVID INGLIS, M D,

THE RETIRING PRESIDENT

GENTLEMEN —Another year in the historv of our Association brings us to-night to a point of observation from which we naturally look back to note progress made, and forwards to plan how best to fulfil our coming duties and opportunities In such a retrospect perhaps one of the most striking facts, and one of which our Secretary's interesting statistics make no note, is that during the entire year of active work in the Society there has occurred no instance of animosity or contention between members, but rather we have harmoniously worked together

Therein, I conceive, lies a valuable lesson as to the uses and value of a medical society We are proud to count a membership of ninety-five active members, but prouder to show ninety-five physicians who have put aside personal animosities and united in a common effort for a common good The experience of such a society also demonstrates that much of the ill feeling which arises among medical men can be obliterated if they will but come in contact with one another There is a treasure of philosophy in the statement that "no man is as good as his best deed nor as bad as his worst" Our professional life is, in its nature, one of an unusually personal character, and we are, all of us, in danger of taking too personal a view of events We are too much in danger of judging some professional brother by his worst act It has happened, not once but repeatedly, in this Association, that meeting as we do, in a more general relation, some of us have learned that others are by no means as bad as our worst act had seemed to indicate

On the other hand, such a society just as surely tends to bring out the fact that we are, none of us, fully as good as our best deed This process of friction, while sometimes disagreeable to the subject, is uncommonly salutary, and tends to a higher average of good work In a word, the year's work has brought about an increase of good feeling and promoted many friendships It would be a great gain, to many localities in the State, if working medical societies were formed and existing societies vitalized into more generous life

As part of the retrospect of the past medical year it might be stated, that an amendment in the organization of the State Medical Society has been proposed by which that Society shall be changed into a delegate body It would seem to be a long step in advance as tending to compel the formation of local societies and to raise the value of membership in the State Society The great need of our profession is unity—no other profession allows personal animosity to so weaken its power as does our own

So, we would hold up our Association as a living example, yet modestly withal, for there are others in the same station Indeed, to night it is our great pleasure to welcome, as we do, so many members of our local sister societies It is a pleasant testimony to the growth of friendly feeling that we can thus come together While we each pursue our work in the coming year, let us carry ourselves simply as regiments in the same brigade, each jealous of our own honor, but all engaged in one purpose

To the gentlemen from neighboring cities, as well as the unattached of our own, we give a cordial welcome, and are honored by their presence

In reviewing the past year there is one fact which can well be mentioned with pride, and that is, the number of pathological specimens which have been presented, enough, indeed, to have furnished working material for a good pathological society Such an amount of material indicates increasing thoroughness of scientific investigation on the part of our members, and ought to serve as a reminder that we can, with much advantage, during the coming year, devote more time to pathological discussion It also recalls the fact that a large part of the reported cases met with in the journals are shorn of half their value by the statement "no *post-mortem* was allowed" nothing confirms a diagnosis like a post-mortem examination Sometimes it disproves the diagnosis

In the year's work of the Society, one element has done much to maintain the interest and promote vigorous life, I refer to the plan of having set debates appointed This plan seems to be unusual in medical societies, but its working has proved most successful, there is an unmistakable freedom of expression and criticism, and much is gained by the vigorous discussion of both sides of a question

In a retrospect of the year's work and contemplating it, as we do, with pleasure, I cannot forbear embarrassing our Secretary by a testimony to his unfailing zeal and attributing to him, in greatest measure, our success And our retrospect brings to our minds that which the years unfailingly bring, the gathering of the ripened grain We are all conscious that our work and our efforts are but part of the necessary growth of life, and "the end crowns the work" We ought to look forward pleasantly to the time of its completion, and, indeed, it is with pleasure that we recall how nobility of character in each, crowned lives which, in their short space, were of benefit and pleasure to us and to all whom they influenced Yet the fields look barren in the autumn, and we could wish that Reynolds's cheery voice and good judgment and Pease's hearty good-will to every body were with us yet

---

[1] Delivered on October 4 1885

There are many other things which such a retrospect suggests, but it is to the future I would call your attention What are the duties and opportunities which lie before us? To such a question there arise many answers, but from among them I would dwell upon one

WHAT IS TO BE THE FUTURE OF THERAPEUTICS?

It is obvious that much of the scientific work of the day is done by men who entertain but slight regard for faith in therapeutics, who themselves seem not to possess such a faith, and whose writings and statements of facts are such as to foster skepticism in regard to therapeutic possibilities It can hardly be denied that, as a result of this, there prevails, in certain quarters, a more or less pronounced skepticism, and that among practicing physicians Now, the blame for this state of things does not lie wholly at the door of those pathologists who can conceive of no disease which does not have its origin in some demonstrable lesion, some atrophy or malformation, and who pass over functional diseases with contempt or an apology, but this lack of faith originates, fully as much, from the one-sidedness and the inefficient methods of therapeutical investigation itself It is a good deal here as in religious matters, many people will not join the church on account of the claims of the world, the flesh, and the devil, but about as many more keep out because of the inconsistencies of those who already are church members Now, it behooves us who have faith in therapeutics to mend our ways And, to my mind, the first thing to be done is to more accurately define and establish the *place of action* of our various drugs While it is obviously true that, the body being a whole, general bodily states in many cases give the indication for treatment, yet it is also true that, not only in diseases distinctly local, but also in general systemic diseases, our therapeutical endeavors are directed to localized functions Instances could be given without number, but the mere mention of the fact suffices In anæmia, rheumatism, scrofula, the various fevers, and, indeed, in about all the general diseases, the constant demand upon the physician is to modify the function of one or other organ Herein, I conceive, lies the success of the skilful physician, of many physicians using the same general group of drugs, one will achieve better results than the rest simply by a more accurate judgment of the adaptation of the remedy

This brings us to the consideration of the next thing which ought to be done, namely we should more thoroughly work out the detailed symptoms of each case It is much easier to formulate in our mind certain gross symptoms and, coupling them with certain physical signs, make a diagnosis of a *disease*, than it is to bear in mind, beside the grosser symptoms, the lesser manifestations, the finer shades, and to make the diagnosis thus *A patient in a certain condition* If we hold in our minds the idea of a pneumonia, for instance, we are not far from falling into some routine treatment of pneumonia, but if we have in mind the patient with a process going on which not only, tangibly enough, interferes with the function of respiration, but, just as certainly, with the function of the nervous centres, the digestive, glandular and circulatory organs, and that the danger may make its appearance at any point, we will not only find indications for prognosis in the varying lesser symptoms, but still more important indications for treatment In other words, we have fallen lamentably behind in the study of symptomatology

The most cogent claims which medicine makes to be considered as one of the sciences are based upon the accumulated facts of pathological and physiological research The pathologist, in spite of his therapeutic skepticism has just cause for pride, so, too, has the surgeon Time was when the surgeon barber was held in low esteem, but our surgical brethren not only claim for themselves, but are credited by the laity with the highest place Their claim is based like that of the pathologist, upon accumulated and unquestionable facts

Now it would seem that the only permanent basis for a scientific Therapeusis is to be found in an exact knowledge of two kinds of facts *first*, what is the precise effect of a drug upon the functions of healthy organs, and *secondly*, what is the effect upon organs whose functions are already disordered?

The first class of facts are being accumulated in a gratifying manner by a number of competent investigators, the second class must, in the nature of things, be accumulated by the practitioners in direct contact with the sick Such men as Dr H C Wood, in investigating the first class of facts, pursue a very definite course The drug to be studied is used *alone*, of definite strength, accurate dosage, phenomena observed are recorded with accuracy and verified by many repetitions Suppose that we apply that plan to our purposes as practising therapeutists Is it not evident that it would work a revolution in the methods of practice, and in the place of therapeutics in medical science! It would first do away with complicated prescriptions, it would compel the physician to pay attention to the quality of the drug used, he would ascertain how long it had been kept in stock, the reliability of the manufacturer and the accuracy of the dispenser He would be compelled to note accurately, not in his fallible memory, but in records which could be referred to again, all the variations both in the symptoms existing when the drug was first administered and the modifications of the symptoms *produced by the drug* I do not say after the drug was given, but "produced by the drug," for by this plan we would soon reach that certainty which constitutes a *fact*

It may be replied that all these things are being done already, and I grant that here and there are men who are following out these lines, and who can justly claim to be scientific physicians, but a perusal of the insufficient notes taken by those whose notes become public in connection with reported cases, and a single thought of those who never take notes at all, establishes the fact that general practitioners have not yet fairly taken in hand the problems which general practitioners only can solve On the contrary, there is abundant and painful proof that the profession as a whole is seriously retrograding We have just said that the scientific physician is one who accurately applies his remedies to accurately observed conditions to produce constant results, what shall we say of physicians who prescribe patent medicines!

I do not refer to "Dr Pierce's pleasant purgative pellets," or "Ayer's sarsaparilla," or "Dr Hartley's great South American cure " We all agree in our condemnation of these and their kind, their makers and their makers' methods There may be some virtue in them, probably is, but not knowing their component parts, we cannot tell of their proper uses They are vaunted to cure such a multiplicity of diseases that we at once deny the claim They are advertised in what we consider an obnoxious manner, we will none of them! I hold in my hand some interesting medical literature The first specimen is got up in somewhat startling red type, and is a treatise upon nervous diseases Celerina, I find therein, is of inestimable value in over fifty different diseases It would take too long to mention them all, but a host of letters from the afflicted prove, among other things, that, to say nothing of spermatorrhœa, impotency and allied nervous diseases (?) locomotor ataxia, malignant jaundice and mollities ossium gracefully yield to this compound, which we are told contains in each fluid drachm the equivalent of "five grains each of celery, coca, kola, viburnum and aromatics " The neurologist's occupation is practically gone

Here I hold a volume upon "Aletris Cordial " I do not know what is in aletris cordial, but seventeen diseases acknowledge its sway, and with seventeen gynecological diseases (among which, curiously, is typhoid fever) counted out the gynecologist is left but a stubble field We are not *quite* sure what constitutes "Fellows' Syrup of Hypophosphites," but a beautifully bound series of text books upon "Nervous Diseases," "Pulmonary Diseases," etc , informs us of its remarkable effects in forty-six different diseases

These are great in themselves, but they pale their ineffectual fires before "Dr Hayden's Viburnum Compound " A similar obscurity hangs over the contents of this prescription, and words fail me in giving any adequate account of its virtues Caulo corea, Iodia, Horsford's Acid Phosphates, Listerine, Tongaline, Dyspepsine, Quineptus, Morrholine Ne phrilene, Asthmaticine, these and many more keep our medical journals alive in more ways than one I do not need to go further, the plain and pitiful fact stares us in the face from nine tenths of the medical journals, that the medical profession has allowed itself to become debauched, it has abrogated its function, and it is impossible to draw any line between the nostrums which the people buy and those which many physicians prescribe I add Ayer's and Hostetter's almanacs to the pile, they are, on the whole, rather more modest than some of the others

No, gentlemen, it is high time that we enter our protest and that we, each of us, purge ourselves The present methods are unjust to the people, for they are entitled to scientific therapeutics at our hands, and to just prices for their medicines (That they pay an unjust price, is evident from the fact that one firm engaged in the manufacture of one of these articles, is said to have paid last year, a dividend of 75 per cent on its capital stock) These methods are unjust to our pharmacists, for they cannot conduct legitimate pharmacy at a fair profit These methods are unjust to ourselves, for we are lowering the standard of our professional life

The future of therapeutics will be this The profession will find that using and recommending private and semi private formulæ, as well as the vast array of elixirs of unknown strength and composition, will result in serious detriment to all parties concerned, and self preservation will compel recourse to scientific therapeutics

Let us all begin now

ORIGINAL ARTICLES

THE PHYSIOLOGICAL ACTION OF THE DIFFERENTIAL PNEUMATIC PROCESS ON THE CIRCULATION[1]

BY E TIEGEL, M D ,

OF NEW YORK

A series of physiological investigations, the major part of which has been made only of late years, can so easily be brought into relation with the manner in which Dr Williams' process reacts on the body that one might easily think that the invention of this apparatus was a consequence of these investigations But on the contrary, the current of thought was a completely independent and original one For this very reason it is the more useful and necessary to show that in the pages of theoretical medicine this apparatus, which for a considerable time has stood a number of practical and clinical tests with brilliant results, can be freely proved and its action physiologically deduced To accomplish this, we have to refer to the researches of a series of authors, among whom we shall mention Einbrodt, Quinke, Pfeiffer, Zuntz, Knoll, and Yager

A number of necessary experiments have also been made with the pneumatic cabinet in which I have been assisted by my colleague and associate, Dr W

---

[1] See the following articles Dr Herbert F Williams, N Y Medical Record, January 17 1885 Editorial in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, February 14 1885 Dr V Y Bowditch, Boston Medical and Surgical Journal, July 16 1885 and JOURNAL OF AMERICAN MEDICAL ASSOCIATION August 1 1885 Dr A S Houghton JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION November 7 1885 Dr P C Jensen same JOURNAL and date Dr W Everett Smith same JOURNAL November 14 1885

A de Watteville, of New York, and Mr Joseph Ketchum, of Brooklyn

Before proceeding further, let me present a short description of the instrument and the process

The pneumatic cabinet as at present constructed is of sufficient size to accommodate a patient seated within it In communication with it is a bellows, or cylinder, of such size that when opened to its full capacity it withdraws sufficient air from the interior of the cabinet to produce rarefaction to the extent of, say, one thirtieth of an atmosphere This done, the patient is instructed to place his mouth over the orifice of a flexible breathing tube, and the air from the outside is allowed to flow into his lungs in its effort to replace that which has been withdrawn The extent of this inflow is the amount of his respiratory capacity, plus the pressure of, say, one-thirtieth of an atmosphere Expiration is thereupon effected by the muscular effort required to overcome the increased atmospheric pressure The amount of air respired by this means, and at this degree of rarefaction, is increased by from 20 to 100 per cent, depending largely, of course, on the individual respiratory capacity

In the following discussion I speak only of the process just described, leaving to other investigators to determine the therapeutic scope of the instrument as an aid to respiration by the reverse of the above, and by the ability of the operator to effect complete artificial respiration by inspiratory and expiratory aid, or force synchronous with the normal respiration of the subject

Let us examine what would happen in our body if the heart stopped, and yet the respiration proceeded normally If such a condition could be produced, and life could co exist, we would have without the respiration exactly the same manometrical pressure wherever we measured it In the advent of an inspiration the pressure in the cavities of the plueræ would necessarily increase, the lungs be more aspirated than before, the capillaries more expanded, their volume increased, and a certain quantity of blood from outside the thorax aspirated into it In this case we would get an inspiratory wave in the vascular system Let us call any movement of air or blood, the direction of which is *towards* the thorax, an *inspiratory movement*, and any movement *away* from the thorax an *expiratory movement*, or wave This inspiratory wave may show itself in the veins only, and not in the arteries of the body, because the semilunar valves of the aorta prevent any other movement than the one towards the capillaries of the body Therefore we have an inspiratory depth wave in the venous system In case of a forced inspiration the pressure in the cavities of the pleuræ is 40 mm less than in the atmosphere, and therefore the venous wave would be large

At the end of an ordinary expiration the pressure in the cavity of the pleuræ is only 6 millimeters less than the pressure of the external air During such expiration the pressure therefore increases 34 mm, and the volume of the lung capillaries must correspondingly decrease, and we have now an expiratory wave, which, according to the mechanism of the valves of the heart, must be felt principally in the the arterial system of the body With a forced expiration we can bring the pressure on the alveolar side of the lungs to more than 30 mm mercury above the atmospheric pressure, and thus compress the blood vessels in the thoracic cavity, which naturally must cause a greater positive expiratory wave than the ordinary passive expiration We would thus be able to sustain a sort of circulation by forced respiration even in case the heart stopped This circulation would have the same direction as the real one, produced by the heart Physiologists have for some time cherished the belief that the functions of the heart were not affected by the relations just explained, and that the action of *respiration* or *circulation* would simply be added to the action of the heart This is the reason why they thought that the arterial pressure was greater in expiration than in inspiration But this was fundamentally wrong The first sphygmographical experiments proved that besides undulations of arterial pressure, caused by the pulsation, there exists another system of undulations much slower in movement and with much longer waves It was proved to be isochronous with the respiration, and therefore was supposed to be caused by it It is a system of waves upon which the pulsations are *superimposed* Without closer examination they declared that the ascending portion of the respiratory wave coincided with and was caused by the expiration, and that the descending portion stood in the same relation to inspiration Einbrodt was the first who registered upon one and the same paper, at the same time, both the respiration and the blood-pressure, and thus proved that the ascending branch of the respiratory wave of the blood-pressure corresponds to the inspiration and the descending branch to the expiration But both systems, that of the respiration and that of the respiratory movement of blood-pressure, are temporarily displaced towards each other

In ordinary respiration the blood pressure ascends during inspiration and sinks during expiration But the highest point of each undulation of blood pressure is immediately after the beginning of expiration, and its lowest point immediately after the beginning of inspiration Such is also the case in deep respiration, where the expiration lasts longer than the inspiration It is not noticeable that the succession of pulsations are quicker during inspiration than during expiration If the respiration be very quick and shallow we cannot find a decided influence of the respiration upon circulation If the breathing is deep and slow, if, for instance, the pneumogastric nerves are irritated, we have the same undulations of pressure as in the first case, but their frequency is not affected

In explaining these facts we must keep in view that undoubtedly the expiratory diminution of the thoracic volume is favorable to the transportation of blood out of the thorax, and that the inspiratory enlargement must cause an aspiration of blood, but it is equally sure that these factors are more than compensated by others equally important These must be now examined, and we shall find them to consist in the influence exerted by the respiratory acts upon the celerity with which the blood runs from the right heart through the lungs to the left heart

If we remove the lungs from the thorax and compare the amount of blood which passes through them, both in equal time and under equal pressure, we find that this amount varies according to the condition of the lungs, viz if the latter are collapsed, the amount of blood is greater, if, on the other hand, they have been insufflated from the trachea, the amount will be smaller In the living body, however, the lungs are never expanded by means of such insufflation, but always by the inspiratory movement of the thorax, by means of which the pressure is lowered on the pleural side, and so the air is sucked into the lungs through the trachea But if we intend to imitate this artificially on excised lungs (for which, of course, we need special apparatus), we find that, under otherwise equal conditions, more blood will pass through the lung which has sucked up its air in the manner described

The net of capillaries in the alveoli is so arranged that by the expansion of the lungs their transverse diameters are increased, and therefore the resistance to the flow of blood is diminished This is the reason why the blood will pass rapidly through a lung which has filled its air cells by suction When, however, the lungs are insufflated, they compress the capillaries to the extent of increasing the resistance to the flow of blood We understand now why, during inspiration, more blood passes from the right to the left heart than during expiration In addition, we have during inspiration a lowered pressure in the whole pleural and mediastinal space, and hence over the heart and great vessels inclosed in the thorax This lowered pressure, however, makes itself hardly felt on the left heart with its thick muscular walls, and on the rigid coats of the aorta, but the opposite is the case with the large veins and the right heart, which suck up blood in consequence

In *inspiration*, therefore, the right heart has more blood, and drives it more easily through the lungs A greater quantity of blood will pass into the left heart and aorta, and for this reason the blood pressure will rise in the arterial circulation

There are two ways in which the heart alone can augment the average arterial pressure One is if the pulsations follow each other more quickly, the other is when the amount of blood which is driven into the aorta is increased in each individual pulsation Both ways may coincide under certain circumstances

One phenomenon still remains to be explained It is the retardation which the tops of the respiratory blood pressure waves show in comparison with the tops of the immediate respiratory curves But this apparent exception is indeed the best demonstration of the correctness of our explanation We said The volume of the pulmonary vessels is greater during inspiration than during expiration, hence there must be a change of volume at the beginning of every act of respiration In other words, we shall have a diminution at the beginning of expiration and an increase at the beginning of inspiration The blood which in the former case is displaced from the lungs must flow into the left heart and into the aorta Therefore we have the highest pressure at the commencement of expiration, but immediately afterwards the pressure sinks When, at the beginning of an inspiration, the volume of the pulmonary vessels is augmented, the increase must be filled out with blood, and for a short moment, that is, for one or two pulsations, the left heart gets less blood than before, and the pressure in the aorta sinks to its minimum

Waldenburg, as is well known, devised an apparatus in which it is possible to make a man inhale either compressed or diluted air He was of the opinion that the arterial pressure is increased by the inhalation of compressed air We know now that the experiments which brought him to this opinion do not justify his conclusions He applied a sphygmograph to the radial artery of a man and made him inhale compressed air He now found that the average position of the lever of the sphygmograph was higher than before But this phenomenon is not caused, as Waldenburg believed, by an increase of arterial pressure, it is caused, on the contrary, by an *increase* of the *venous* and a decrease of *arterial pressure* The blood is stemmed in the capillaries and veins, in consequence of which the tissues are swelled, especially those lying beneath the sphygmograph Experiments upon animals prove the correctness of this explanation The animals were prepared in such a manner that the blood pressure could be measured immediately with a manometer The most interesting ones for our purpose are those made by Zuntz He used the apparatus of Waldenburg, which was connected with the trachea of a dog in which the arterial pressure was registered with the kymograph The possible variations were using, (a), compressed or diluted air in, (b), inspiration and expiration The results are the following

1 Expiration *into* compressed air, arterial pressure *sinks*

2 Inspiration *of* diluted air, arterial pressure *rises*

The respiratory undulations were higher in both these cases than ordinarily

3 Inspiration *of* compressed air, arterial pressure *sinks*

4 Expiration *into* diluted air, arterial pressure *rises*

The respiratory undulations were lower in both cases than in ordinary respiration

It is now not necessary to give a detailed explanation why these experiments prove the correctness of our opinion on the influence of respiration upon circulation If, in case 3, the respiration was continued for a long time, the blood pressure finally rose and its respiratory undulations were strongly expressed But this is caused, very probably, by dyspnœa and contraction of the small arteries of the body caused by it In addition to this apparatus of Waldenburg, many other forms of respiratory apparatus based on the same principle have been applied to the human respiratory organs How far they could have reacted on circulation can easily be deduced from the principles we have explained in the foregoing pages, so that further details are unnecessary

Let us now reflect how to arrive at the solution of the following problem *How can we increase the* *arterial blood pressure in the body by means of respiration?* To arrive at this result we must not blow up the lungs, but expand them by suction. In other words, we must enlarge the chest. To enlarge the chest without muscular force we must diminish the air pressure which compresses it. We see that such a manner of reasoning would guide us directly to Dr. Williams's differential process. We have simple means to prove the correctness of our opinion regarding the essential physiological effects of the apparatus upon the human body. It will be interesting to show that the quantity of blood driven out of the chest by the left ventricle is greater when a person is inside the cabinet in reduced atmosphere, and breathes normal air, than if he is outside breathing the normal air. In the latter case, his body and chest walls are submitted to the same air pressure as the air he uses for respiration. At the first glance we are tempted to employ a sphygmograph. But the error committed by Waldenburg warns us not to use this instrument.

Let us suppose the pericardium, with the heart included, was completely rigid and immovable, and there was between its walls and the heart no space at all, or only an incompressible fluid. If now the systole of the left ventricle should squeeze out of the heart 180 ccm. of blood (about its normal capacity), it can only do this if, in the same time, 180 ccm. venous blood return to the heart. But pericardium and thorax are in reality elastic, not rigid, and the 180 ccm. contained in the left ventricle immediately before the contraction, leave the thorax in a fraction of the time of a whole pulsation. But the venous blood which flows from the body into the heart has the time of one whole pulsation to do so. There must, therefore, at the end of every systole exist aspirating forces which influence (a) the venous blood, (b) the air of the lungs, (c) the walls of the thorax, diaphragm, and abdomen. It is only b in which we are interested. Here we can demonstrate an inspiratory movement of the air, caused by every systole, by joining the trachea of an animal with a Marey's tambour (or Marey's diaphragm), and by arresting the respiration for a short time. But also on man this negative pulsation can easily be demonstrated by joining the cavity either of the nose or of the mouth with a manometer containing a few drops of colored water. We now close all openings (mouth and nose), arrest the breathing, and open the glottis. On doing so we notice a leaping or bobbing of the water synchronous with the pulsations. The first half of the wave is an inspiratory one, that is, the first and quick part of the pendular movement is towards *the chest*. The second part of the movement is constantly interrupted with dicrotism, In case the glottis is closed (few men are able to govern their glottis in such a manner as to keep it open when told to stop breathing) the drop makes again an excursion synchronous with *the pulsation, but it is in an* opposite direction. The drop is moved outwards because now the wave of the pulsation fills the arteries of the buccal and nasal cavities during its passage. Hence the volume of these cavities is slightly diminished. We understand now that the movement which we see when the glottis is open is a difference between two antagonistic movements, and that the systolic aspiration of air is in reality more considerable than is indicated by the manometer.

In repeated trials we have compared measures to make sure whether the excursions of the drop are greater after an inspiration inside the cabinet or not. Without exception we obtained the same result, and we found that they are greater during the sojourn in the cabinet, and are therefore an excellent proof that the quantity of blood thrown out of the left heart into the aorta by one pulsation is greater during respiration inside the cabinet than outside. To further prove that the arterial pressure is raised, we must show that the number of pulsations is not essentially decreased by the apparatus. If a man, whether healthy or sick, be put for the first time into the cabinet, and if he experiences for the first time the dilating influence upon his chest, his pulsations show some irregularity, which disappears as he becomes acquainted with the manner of breathing.

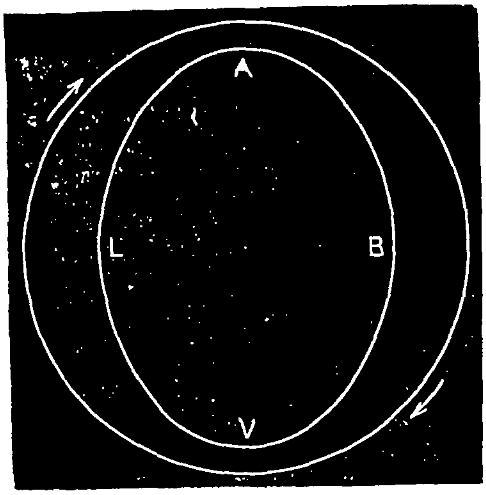
In every case the psychical and physical accommodation is gained after some time, and then we have the general rule that the main number of pulsations taken in one whole minute is greater inside the cabinet than outside, During the inspiratory state of the chest the frequency of pulsation is greater than during the expiratory state, the difference inside the cabinet being much greater than would be the case normally. The following is the outcome of an experiment made which gave, on frequent repetition, the identical results:

Normal breathing outside the cabinet, pulse	70
Inside the cabinet, with diminution of seven tenths inches, average mercurial pressure	
On light (not labored) respiration	88
On full inspiration held	104
On full expiration held (after allowing pulse to quiet down)	60
Ordinary pulse after breathing in the cabinet through the tube and then shutting the stop cock	80

That is arranged:

Normal outside	70
Normal inside	80
During respiration inside	88
On full inspiration	104
On full expiration	60

The changes produced in the pressure and rapidity of blood current by the use of the differential cabinet can be nicely illustrated in the following manner. Suppose we have a walking path or ring (as shown in figure). It is narrow at the two points A and V, and wide at the points B and L. Suppose now a great number of pedestrians have a cause of interest at heart to walk as fast as possible around this path in the same direction as indicated by the arrows. In this case the following conditions obtain. At the two places where the pathway is narrow the crowding will be great. At the places where the way is wide the crowding will be little. Let us call now the broad part, L, the lung capillaries, and the broad part B, the body capillaries. The pedestrians are the blood corpuscles, and the cause of interest which keeps them moving is the heart's pressure. We now intend to widen the portion of the



pathway, L, through the lung-capillaries (as is done in reality by the differential cabinet). This will produce the following changes: 1. The time in which the crowd, otherwise the blood corpuscles, is able to go round the whole circuit once, is shorter, because the road to be traveled over is at one place wider and easier. The rapidity of the blood-current is therefore increased. 2. From V (vena cava) to A (aorta) the crowding—otherwise the blood-pressure—is decreased, because the pathway is wider. 3, In the part extending from A to V the crowding (or blood-pressure) is increased because the crowd (otherwise the blood) gets quicker from V to A than it would do under normal circumstances.

[*Note.*—The comparison which we have used in this instance is only correct when, in every part of the pathway, both before and after the widening of the path mentioned above, the length dimensions (mathematically considered) are very great in proportion to the breadth of the path. If the latter be increased to a considerable amount, then the result of this widening is a lengthening of the road which every blood corpuscle has to travel, therefore a retardation and not an acceleration of the circulation, and besides a lowering of the blood pressure. This may be the case in our own circulation, especially when we have got an extreme dilatation of the large vascular system of the abdomen.]

In regard to the question whether the pressure of the respired air is the same in the alveola as in the trachea, we observed occasionally that the water drop in the heart manometer was drawn violently towards the lungs of the experimenter, when, with a view of watching the drop pulsations during arrested respiration, we opened too soon the stop-cock which shuts off the lungs from the heart manometer during respiration. The air in the alveoli had not yet arrived at the normal atmospheric pressure. But if the experimenter rested for only a few seconds in the inspiratory position, and then began the experiment, the drop always undulated up and down in a certain equilibrium. As a pressure of less than one tenth of a millimetre of mercury would displace or expel the drop, this fact is the surest evidence that even in the farthest alveolus the air pressure can be brought to be the same as the atmosphere, if we rest only a few seconds in the inspiratory position of the chest.

Very interesting and important observations made on patients can be explained by this fact. I mean the arrest of pulmonary hæmorrhages by the application of the cabinet. Indeed, if the pressure in the lung capillaries and its small vessels sinks, those are the very parts from whence these hæmorrhages tend to come, and if the air-pressure remains the same, or is even increased, it is perfectly plain how the hæmorrhage can be stopped.

According to observations made, the succession of pulsations is quicker during inspiration than during expiration, providing the way of breathing is such that any difference can be observed. We made some experiments with the view of determining if inside the cabinet the same relations exist. The experimenter remained for five seconds in inspiration, and and then for five seconds in expiration, and counted his pulse in both cases. In inspiration the frequency of the pulse was considerably greater than in expiration. All professional men who have breathed inside the cabinet agree that the thorax scarcely ever reaches the normal expiratory position, but on the contrary the inspiration surpasses by far the ordinary state, and *if performed slow enough* it reaches the highest standard possible. *Respiration is now performed not with the respiratory air only, but with the complementary plus the respiratory air.* The inhaled and the expired volume of air is considerably greater than in ordinary respiration. Moreover, there is the following important fact. In ordinary respiration, inspiration is the active and expiration the passive act, but inside the cabinet we have the reverse. *Inspiration is passive and expiration active.*

To show objectively that the type of respiration is changed, we made the following experiments. If one breathes through a large tube to which a mercury manometer is attached in such a manner that the lateral pressure of the inspiratory air-current can be measured, we fail to observe any movement in the mercury as long as the tube is wide enough. But the slightest obstacle, as a finger, crossing the opening without closing it, is sufficient to induce the mercury to move, and then we see that the inspiratory excursion of the mercury is greater than the expiratory one. In applying the same disposition to our experiment the experimenter entered the cabinet breathing the normal air through the tube. The mercury showed only an expiratory movement, because now no active aspiration is needed to bring air into the lungs.

In close connection with the question we have discussed thus far, there are others of not much less importance. They regard the exchange of gases inside and outside the cabinet. It cannot be doubted that only special experiments can give a complete certainty in this respect. But we know certain physiological facts, which can be demonstrated, to show what, in all likelihood, will be the state of things. The greater fractions of both the essential gases contained in the blood, that is of O and of CO, are held there in a loose chemical combination. The nature of such a combination causes that the quantity of both gases, contained in a given quantity of blood, can change considerably, but that their tension changes only slightly The tension of O especially is so low that mammals and man can absorb O enough from an atmosphere wherein the tension of this gas is only 50 mm mercury Any given quantity of blood can be saturated with O at this tension, but the process goes on much slower than it would do at a higher tension The higher the tension is the quicker the blood is saturated with O We know that during one respiration the heart makes four pulsations In ordinary circumstances 4+180=720 ccm of blood pass through the lungs during this space of time, and are transformed from the venous into the arterial state

If we should do the same thing outside the body by shaking 720 ccm venous blood with air, we would take much longer time The reason for this is that inside the lungs the blood is spread over an extended surface where it is influenced by air If we fulfil this condition outside the body by making the blood flow along the walls of large glass tubes, through which an air-current runs, the arterialization is performed in a similarly short time There are two factors which favor the oxygenation of blood Firstly, *the increase of contact surface between air and blood*, and secondly, *the increase of the partial pressure or of the tension of O in the air* These factors can replace each other Observations have been made on the population of the Highlands of South America and on other mountaineers Many of them suffer from a peculiar kind of anæmia, which can be cured by sending them to live in low altitudes, best of all at the sea shore From others, otherwise strong and healthy, it is reported that their chest and lung capacity is larger than usual If the blood has to remain a little longer in the lungs, and if it is spread over a greater surface it absorbs the same quantity of O during one respiration that it does at a higher pressure but less surface

Between the limits of human habitation the variations of the contact surface are much more important for the gas exchange in our body than any geographical or meteorological variations of the air pressure It is very likely that a person suffering from a reduction of the respiratory surface, whatever disease it may be caused by, absorbs more oxygen inside the pneumatic cabinet The remarkable effects of the pneumatic process as a general and special tonic, which clinical experience has shown, has been demonstrated in the able and interesting article of Dr H F Williams, in the *Medical Record*, of Jan 17th, 1885 For a healthy man the former statement cannot be made, because the increase in the velocity of the blood movement through the lungs will compensate the possible influence of the increased respiratory surface But such an increase would in most cases be useless by itself The arterial blood of a healthy person is entirely saturated with O, and the influence of the apparatus can be a mechanical one only But in case of a person suffering from a reduction of respiratory surface, we have a different state of matters Physiology teaches us that in dyspnœa caused by the insufficient ventilation of the blood, the arterial pressure increases It is increased not because the quantity of blood contained in the arteries of the body is greater than in the normal (this quantity is, on the contrary, less), but it is increased by a simultaneous contraction of the arterial walls This phenomenon is caused by nerve influence, especially by the accumulated carbonic acid in the blood running through the medulla oblongata and spinal cord If now, in consequence of the influence of the pneumatic cabinet, we get an increase of the contact surface between blood and air, the blood will be better ventilated, and by degrees the cramp-like contraction of the arterial walls will disappear, so that in such a case the apparent effect is contrary to the one produced on normal bodies It will depend on certain circumstances if this decrease will be followed by an increase corresponding to the normal one

The effect just explained, however, can but prove highly useful in any disease where the blood wants more O, and where it is overcharged with CO_2

We finally come to the question concerning the exhalation of carbonic acid This process is, within large limits, independent of the absorption of O as far as mere quantities are concerned But we see that a condition which favors the one, generally also favors the other, and therefore we may suppose that more CO is discharged inside the cabinet than outside, the difference being the greater, the greater the difference of the absorbed quantities of O

In regard to the use of the apparatus in cardiac therapeutics, the physiological conclusion of our argument must be evident, Its use is indicated in every case in which we have a deficient oxygenation of blood, and where the state of the cardiac and arterial walls do not render a sudden dilation dangerous, as, for example, would be the case in fatty or sclerotic degeneration

In closing, I have to render my thanks to my friend and associate, Dr W A de Watteville, of this city, to whose able assistance both in conducting the necessary experiments and in the preparation of the text itself, I am much indebted

211 East 10th St , New York

BIBLIOGRAPHY

Goltz —Virchow's Archiv, vol 29, p 394 1864

Donders —Physiologie des Menschen, second edition, 1859

Einbrodt —Sitzungsberichte der Wiener Academie, Bd xl, p 361 1860

Quincke and Pfeiffer —Archiv für Anat und Physiol , 1871, p 90

Waldenburg — Berliner klinische Wochenschrift, 1873, Numbers 46 and 47 Die pneumatische Behandlung der Respirations- and Circulations Krankheiten, Berlin, 1875

Zuntz —Archiv fur die gesammte Physiologie, Bd xvii, p 374 1878

Knoll —Archiv fur experimentelle Pathologie Bd ix, p 382 1878

De Yager —Archiv fur die gesammte Physiologie, Bd xx, p 426

Kuss —Gazette Hébdomadaire, 1877, p 391

Lambert —Etude clinique et expérimentale sur l'Action, etc , 1877

Ducrocq —Récherches expérimentales, etc , 1875
Hoppe-Seyler —Physiologische Chemie, p 545
Tourdanes —Influence de la Pression de l'Air sur la Vie de l'Homme, 1875
A very reliable account of all the work done on circulation is found in "Handbuch der Physiologie," by Hermann, Bd iv, part 1 "Blut und Blutbewegung," by Rollett

---

EXOPHTHALMIC GOITRE, OR GRAVES' DISEASE

BY J W THOMPSON, M D,
OF ST PAUL MINN

During the past ten years that I have been engaged in the practice of ophthalmic medicine and surgery, I have had the opportunity of seeing a considerable number of cases of exophthalmic goitre The pathogeny and treatment of this remarkable disease are very unsettled and therefore very unsatisfactory With a view of adding something to my limited knowledge of this subject beyond what I was able to gather from its literature, I adopted, in the beginning, the practice of keeping somewhat extended notes of every case of the disease that came under my observation I have selected five typical cases for the subject of this paper, and herewith present the results of my observations to the readers of the Journal

Palpitation of the heart, enlargement of the thyroid gland, and prominence of the eyeballs formed a marked trio of symptoms which were present in all five of the cases selected Each one of these great symptoms occurred in point of time in the order above mentioned The length of time between the occurrence of these symptoms in their regular order was not constant The longer the interval between the heart disturbance and the enlargement of the thyroid gland, the more unyielding was the malady to remedial agents and the more protracted and intense was the suffering of the patient One of the five cases occurred in a male 30 years of age Of the four females the disease occurred in one before the menopause, and in the other three at or about that period The heart palpitation in the male was very distressing several weeks before the other symptoms made their appearance In his case the enlargement of the thyroid was very slight, while the protrusion of the eyeballs was very considerable In all other respects he was healthy and robust and had always enjoyed good health There seemed to be nothing in his individual history that furnished any apparent cause or foundation for the disease Upon investigating his family history, he stated that one member of the family, a brother, had in early youth suffered with "fits" as he termed it A careful inquiry revealed the fact that the "fits" had undoubtedly been epilepsy Possibly this peculiar neurosis manifested itself in the one by epilepsy and in the other by exophthalmic goitre

Of the four cases in females, in three of them, the three characteristic symptoms exophthalmos, goitre and quickening of the heart's action were well marked In the fourth one the enlargement of the thyroid was confined to the left lobe Over the right lobe only a very trifling fulness could be detected The prominence of the eyeballs was very great At times the insertion of the recti muscles could be seen The eyes became very sensitive to the light, and in one a central corneal ulcer formed, which is a complication said by some authors never to occur The severity of the symptoms was so intense that the patient was confined to her bed the greater part of the time for a period of nearly four months Under appropriate treatment the ulcer healed kindly, the patient made a good recovery, and four years afterwards was enjoying good health It is over a year since I lost sight of her, and I am unable to say whether there has been any recurrence of the disease

The general symptoms in all the cases, except the male, were very like Great excitability, anæmia and emaciation were present in a very marked degree The rapid and forcible action of the heart produced a rapid, jerky, trip hammer pulse The carotids throbbed perceptibly and the pulsation of the abdominal aorta could be very distinctly felt In one of the cases I found the pulse as frequent as 170 per minute ! In none of the cases did I find it below 100 There existed in all an extremely intensified self consciousness The most trivial exciting cause produced flushing of the face, great increase of the heart's action, and occasionally much dyspnœa, which in one case, became at times rather alarming In this case however, some of the dyspnœa could be readily attributed to the excessive enlargement of the thyroid The enlarged thyroid increased the size of the neck to such a degree, that the collar she formerly wore was too small by four and one-half inches

Among the general symptoms, besides the palpitation of the heart, goitre and exophthalmos, there were a number of minor symptoms which were more or less present in all the cases, and proved at times annoying and even distressing These were indigestion, hepatic disorder, pains in the extremities, local dropsy, sleeplessness, headache, vertigo, ringing in the ears, nausea, and vomiting after meals, diarrhœa, hæmorrhage from the bowels, nose bleed, night-sweats, and in two of the cases hæmoptysis There was also much irritability of temper The mind became at times very capricious and suspicious, feeble and childish

One of the prevailing theories of the day is that this peculiar disease has its origin in the nerves of organic life From the observations that I have had the opportunity of making, I have become a little skeptical on this point It seems to have been established more by assertion than by proof With a view of throwing some light, if possible, on the correctness or incorrectness of this theory, I made a very careful record of the temperature at stated times in each and every case that came under my observation In each instance I found it above the normal It ranged from 99 to 102 It was usually increased when, from any exciting cause, the action of the heart was accelerated The temperature was always taken on each side of the body at the same time, and it always registered the same, *e g* the corresponding cheeks, the sides of the neck and the axilla The normal difference between the cheeks and the axilla was observed in each instance, with one or two slight exceptions hardly worthy of mention It has been quite conclusively shown by experiment that the ganglionic chains have an action entirely independent of each other If the cervical portion of the ganglionic system be involved, as is claimed, then there would necessarily exist a difference of temperature between the corresponding sides, since it is impossible for both chains to be affected equally in the outset and progress of every case of this disease

Another observation made in relation to the five cases, under consideration that opposes the sympathetic theory, was the prompt response of the iris to the action of light and shade and to atropine The writer does not claim that the phenomena furnished by five typical cases alone could possibly establish a correct theory of the origin of a disease, which furnishes such a multitude of symptoms having such a wide range of deviation He does claim, however, that the sympathetic theory is quite inadequate to explain all the phenomena observed in these cases

Dr Hammond says in his celebrated work on "Diseases of the Nervous System" (page 819, seventh edition) "I am inclined to think that in the present state of our knowledge we are scarcely warranted in locating exophthalmic goitre in the sympathetic nervous system, and that we are justified in regarding it as an affection of the brain and medulla oblongata"

The link that connects this disease to ophthalmology is the local effect it produces upon the eyeballs This is, however, only one of its pathognomonic symptoms Yet, it is a symptom that produces a hideous deformity and has given much notoriety to the disease It gives to the eyes a wild, staring expression They project forwards from the orbits in many instances, so far that the lids cannot close over them entirely The prominence of the globe became so marked in one case that the lids at no time, not even while sleeping, completely covered the cornea A very interesting case of this nature is given in Trosseau's "Clinical Medicine," vol 2, page 178 He says "Dr Pain kindly supplied me with further details of this interesting case Twice in the course of a year there came on such a paroxysmal increase of the exophthalmos, that one of the eyeballs became dislocated as it were" "The eyelids got behind the circumference of the eyeball, which had to be pushed back with a certain amount of force in order to get the lids to come forwards again" This prominence of the eyeballs is due largely to hyperæmia of the orbital cushions, and in the chronic cases, there is undoubtedly some hypertrophy Muller's muscle, which has the power of projecting the eye forwards in health, is supposed by some, to act as one of the projecting factors in this deformity In these extreme cases of prominence, the cornea is constantly exposed to the irritating action of the atmosphere and dust Occasionally, in very chronic cases, the conjunctiva of the upper lids becomes much thickened and the surface of the cornea uneven and vascular

In most of the cases that I have been able to observe carefully, the prominence of both eyes was about equal, and as nearly as I could ascertain occurred simultaneously In many of the cases, however, the extent of the protrusion was rather deceptive The eyelids seemed in some instances to become retracted towards the orbit and favored, as it were their lodgment behind the equator of the eyeball It requires but a small increase in the width of the sclerotic zone to give to the eye the appearance of more prominence than in reality exists In one case I observed a considerable degree of anæsthesia of the cornea, so that the finger could be passed over it gently without producing but slight discomfort to the patient I believe this is the exception and not the rule In the cases of extreme prominence, I found hypermetropia in a much higher degree than I had reason to believe existed before the occurrence of the exophthalmos This was the mechanical result produced by the enlargement of the orbital cushions, which pressed the globe forwards against the resisting lids, and thus resulted a shortening of the autero-posterior axis of the globe

The prognosis in this disease is usually favorable, though when required to express an opinion with reference to any particular case, it is prudent to be guarded, since cases have been known to terminate fatally I never saw but one case having a fatal termination In certain mountainous regions in France, this disease has been known to prevail somewhat as an endemic, and occasionally one has had a fatal termination When death does occur, it is usually the result of general exhaustion and a gradual failure of all the vital forces The victim is by degrees worn out

The treatment is about as unsettled as the etiology The materia medica has been pretty thoroughly ransacked without avail for a specific At one time and another I have employed a variety of treatment Iodine exhibited externally and internally seemed to be attended with more favorable results as far as my experience has gone than any other medicinal agent Yet, in some of the cases, the hygenic and diatetic regulations, together with a change of climate when the circumstances of the patient permitted, had undoubtedly a favorable influence in bringing about a favorable result

I think the only safe plan of treatment is to endeavor to guide the malady to a favorable end To attempt to cut it short by specific measures, seems too much like striking in the dark Many times I believe it is difficult to say whether the patient is cured or got well

St Paul, Oct 25, 1885

ABSCESS OF THE LIVER[1]

BY J W HAYES, M D,

OF MARIANA ARK

I do not propose to enter into an exhaustive discussion of the subject of this paper Nor do I deem it at all necessary, at this time, to deal too minutely with a subject so generally understood by all physicians and surgeons as abscess of the liver But in justification, somewhat, for the present detail I will say this, that the inexperienced upon this subject will find very little to comfort or console them by searching our standard authorities They all state that this is a disease that prevails in Egypt, in the East and West Indies, and one author states that it is occasionally seen in the boatmen of the Mississippi River

---

[1] Read before the State Medical Society of Arkansas April 22 1885

That it does exist, and exists in sufficient abundance, all up and down our Southern water courses and other places where miasma abounds, is a truth that cannot be questioned, and urges every practitioner to ever be on the alert for hepatic abscesses in all cases of chronic disturbances of this organ

When we have a well defined case of abscess of the liver pointing outwardly, we have a case easy of diagnosis, and easily treated, the prognosis of which, with proper treatment, I would always deem favorable But when the abscess is deeply seated, or pointing internally, the diagnosis is especially difficult, the operative treatment tedious and dangerous, and the percentage of deaths far greater To distinguish these latter from encysted, or fatty tumors, from hydatids, and, in fact, to distinguish them at all, the aid of the exploring needle must frequently be called into requisition An intelligent history of the case, however, will reveal enough, with the few physical symptoms that are developed, to almost make certain our diagnosis

But just here we might ask What use have we for the diagnosis? When many of our standard authors say that we must not operate on the deep seated abscesses at all, that they are sure to die, at the same time confessing that the fluid, left to itself without an operation, will some day break internally, and by so doing create a certain death

Bégin, of France, recommends the following operation for deep seated abscesses of the liver Make an incision some two or three inches long upon the most prominent part of the swelling and divide with great caution the layers of the abdominal wall, until the peritoneal linings are reached, raise this carefully with the forceps, nick it and afterwards divide it Upon reaching the surface of the tumor, the operation must be temporarily arrested, the wound filled with lint and dressed, the patient to remain three or four days for adhesions to take place, after which we open into the abscess with reasonable hopes of success Several years ago, the Medico-Surgical Society of Alexandria published the statistics of 123 cases, of which only forty two were operated upon, and eighty one without an operation Of the whole number seventy nine died, in nine the results were not ascertained It is of interest to note that of those not operated upon eighty per cent died, and of those who were operated upon only fifty per cent died It seems to me, with a limited experience and knowledge of the disease, that the death-rate here cited in both classes of cases is higher than it would be in our country

A clinical case of much interest has recently come under my observation, a recital of which may be of interest to others

Case —Saw D M, colored male, about 30 years of age, on March 2, 1885 He gave the following history He had been a deck hand on a steamboat and a cotton picker up and down the Mississippi River for the past two years Had been in bad health for six months, unable for two months to do anything Was now complaining of gnawing pains in the right side, had frequent rigors, was somewhat dropsical, with enormous enlargement of the liver, jaundiced appearance of the eye, etc, making, in my opinion, a well defined case of hepatic abscess To these symptoms were added a dry tongue, tympanites, a temperature of 102°, and other symptoms of a slow and low grade of fever A well defined tumefaction presented itself in the centre of the hepatic region Being a long distance from home, I determined to try the virtue of my lancet, though I was entirely alone with my patient Without unnecessary delay I ran my abscess lancet one inch through the adjacent walls, and to my surprise and disappointment failed to reach an abscess With an exploring needle I found pus and a cavity one inch and a quarter deeper I now rode a half mile to procure a nurse and assistant to carry out directions On returning, I made a free incision, whereupon a stream of sero-purulent fluid began to spurt out with considerable force I pulled out an ordinary bucket, empty, from under his bed, and in twenty minutes it was filled with this fluid, the latter half of which was thick pus All told, there could not have been less than eighteen pints of this fluid I gave him no anæsthetic except a small dose of morphia Left an alterative to be administered, to be followed by quinine

On my arrival next day I found my patient worse Temperature 104 5, some delirium, and symptoms pointing to septic infection The alterative medicine previously administered had acted well, but the aperture in the side had closed up, no drainage had taken place for ten or twelve hours On examination, I failed to find the peritoneal adhesions of the day before to the abdominal wall, and think that some effusion into the peritoneal cavity now took place The adhesions doubtless were of recent date, and not firm enough to resist the pressure of fluid turned in this direction I had previously bandaged the patient to aid drainage of the pus and to favor adhesions in the cavity, when drained His face was badly swollen, and every feature was one of anxiety and distress After carefully probing the wound to the liver, about three and one-half pints of pus were discharged I saw him an hour later, when the swelling of the face had disappeared, as also did all his other unpleasant symptoms I now left him, ordering tr iron gtt xv every four hours, alternating with turpentine emulsion—the latter for the fever symptoms for its diuretic effect, and as a general diffusive stimulant I left him this time confident that about twenty four or forty-eight hours, at the outside, was his probationary period for this life

I saw Mr H (on whose farm the patient lived), three days after my last visit, and was informed that the man was in fine spirits, had a good appetite, and was improving rapidly I sent syrup of hypophosphites, to be taken in conjunction with the other treatment, and directed that the aperture be kept open, and a free drainage induced He was left to nurses of his own race and color, who neglected this important part of the treatment The wound closed, the drainage stopped, and the patient died two days afterwards

This is the fourth case of abscess of the liver that the writer has operated upon, and the only one of the four that died, though one of the other cases was a very delicate and nervous woman about 45 years of age, with bad sanitary and dietetic surroundings The results of the operation in this case suggest the following conclusions

1 Always operate if a reasonable diagnosis is made out

2 Anæsthetics are not necessary in every case for this operation

3 A free incision and a rational treatment warrant a more flattering prognosis, and a larger percentage of recoveries than our standard authorities lay down

MEDICAL PROGRESS.

ANATOMY AND PHYSIOLOGY

The Use of the Fossa at the Lower End of the Fibula—Mr C B Lockwood, in a note on this subject says If the usual text-books be consulted, they will be found to say that the fossa, at the lower end of the fibula, gives attachment to the posterior fasciculus of the external lateral ligament of the ankle-joint Examination of numerous specimens shows that this is only partially true, and that the most important use of the fossa has been over-looked The ligament (posterior fasciculus of the external lateral) is attached into the lowest part of the fossa, quite close to the apex of the external malleolus The upper part of the fossa serves for the reception of the ligament during dorsal extension of the foot

By dorsal extension, is meant a straightening out of the foot upon the leg Many anatomists call this action flexion of the foot, because the flexor muscles of the leg are concerned in its production —*British Medical Journal*, Oct 24, 1885

MATERIA MEDICA AND THERAPEUTICS

Cascara Sagrada—This drug has been recently extensively studied in the service of M Dujardin-Beaumetz, in the Hôpital Cochin Its bark contains several resins, a peculiar crystallizable substance, a fixed and a volatile oil These bodies have not yet received special study, and the drug is given in the form of the powdered bark or the fluid extract Cascara sagrada is an excitant of the abdominal sympathetic, its special action being on the stomach and intestines, it is a purgative, and of considerable value in constipation It has been used in America in intermittent and remittent fevers, but in France it is used solely for its purgative effect

The powdered bark is given in doses of 25–75 centig, and sometimes in doses of 1 gramme The fluid extract is given in doses of 0 50 to 1 gramme The fluid extract is the best preparation On account of its disagreeable taste, the following formula may be used

Fluid extract of cascara	30 grm
Simple syrup	30 "
Peppermint water	30 "
M	

Dose—3 or 4 teaspoonsful a day

In cases of atomy of the stomach, with intestinal inaction or paresis, cascara may be combined with nux vomica

Tincture of nux vomica	2 grm
Fluid extract of cascara	20 "
Simple syrup	15 "
Cherry laurel water	15 "
Distilled water	10 "
M	

Dose—3 or 4 teaspoonsful a day

—*Nouveauz Remedes*, Oct 15, 1885

MEDICINE

Intra-Parenchymatous Injections in Pneumonia—If, says Lepine, an injection of a few centimetres of a very weak aqueous solution of corrosive sublimate be made into the hepatised lung on the third or fourth day of the disease, in three or four places equidistant a few centimetres from one another, and preferably at the periphery of the lesion, with a view of preventing the extension of the disease, the following phenomena are observed 1 At the seat of infection an immediate diminution of the crepitant râles and tubular breath sounds, which are in part replaced by respiratory silence and some larger râles, 2 sometimes, later, a transient exacerbation of the temperature of body, 3 the next day a great improvement in the general condition, and notably a precocious defervescence, and 4 a resolution which, to judge by the persistence of the "souffle," especially in the hepatised parts that have not been treated, takes place very much earlier than would have been the case under ordinary circumstances As to the relative innocuousness of the intra-pulmonary injections in the doses employed (20 to 25 cubic centimetres of 1 in 40,000 solution of bichloride of mercury), when care is taken to keep away from the large vessels at the hilus of the lung, and not to penetrate the lung more than 3 to 4 cm (1⅕ to 1⅗ in), M Lépine urges that he has not lost a single patient and has not had one accident The only inconvenience is the pain, but this is not great, and may be still further relieved by adding morphine to the solution After the introduction of the sharp needle, and before the syringe is fitted on, a few drops of blood are allowed to escape, the injection must not be delayed or the needle will become plugged When the needle is inserted into healthy lung or into tuberculous lung it does not as a rule yield blood In the healthy lung such injections produce sufficiently defined lesions Experiments on the lungs of healthy dogs showed that at the site of injection of a rather stronger solution than that mentioned above, there was a circumscribed and indurated area, which was made of blood and congestive œdema The lesions were less marked with the 1 in 40,000 solution.—*Lancet*, Sept 5, 1885

THE

Journal of the American Medical Association

PUBLISHED WEEKLY.

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE, INCLUDING POSTAGE.

PER ANNUM, IN ADVANCE. $5 00

SINGLE COPIES. 10 CENTS.

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers by forwarding in REGISTERED letters.

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 65 RANDOLPH STREET,
CHICAGO, ILLINOIS.

SATURDAY, NOVEMBER 28, 1885.

THE NINTH INTERNATIONAL MEDICAL CONGRESS—WHY FURTHER OPPOSITION SHOULD CEASE.

All who have given due attention to the progress of the work of effecting the Preliminary Organization of the Ninth International Medical Congress will remember that the sudden and apparently concerted withdrawal of prominent members of the profession, in Philadelphia and two or three other cities, from further participation in such organization immediately after the first meeting of the Committee of Arrangements, which was held in Chicago in June last, was in its terms *conditional*. Each notice of withdrawal ended in substantially the same language, namely "*as now proposed to be organized*."

This language clearly implied two ideas. First, that there was something either in the Rules that had just been adopted by the Committee, or in the *personnel* of the organization, or in both, that those withdrawing could not sanction. And second, that if such objectionable features were removed, those withdrawing might renew their cooperation. The only Rule ever mentioned as objectionable was that relative to the conditions of membership in the Congress, which had been so changed by the Committee as to limit the American Membership to delegates from the American Medical Association and from such State and Local Medical Societies as were in affiliation therewith, thus cutting off delegates from all the National Organizations of Specialists. As soon as this proposed restriction of American Membership became known, it was declared unnecessary and injudicious by all parties. This, and the discovery that no provision had been made for an Executive Committee of the Congress to take charge of its interests after the Preliminary Organization had been completed, caused the Committee to defer any official announcement of the Rules or Organization until more mature consideration and another meeting had been held. But from the persistence with which the opposition denounced the Committee and created the erroneous impression in Europe as well as among their own friends at home, that the officers of the Committee were to be officers of the Congress, it was clearly apparent that much the larger part of the opposition was founded on purely personal considerations. We say the *erroneous* impression, because it must be kept in mind that the Committee as enlarged by the American Medical Association in New Orleans, at its first meeting in Chicago organized purely as a Committee of the Association to provide such necessary Preliminary Organization for the Congress as would enable it to assume full and independent charge of its own affairs. So far from claiming for itself or its Chairman and Secretary any official position in the Congress, the Committee adopted a rule at the commencement of its work, that it should appoint none of its own members to an official position in the Preliminary Organization of the Congress.

When the prejudices and passions of the hour have passed by, history will show that this much abused Committee of Arrangements was composed very largely of intelligent, conservative and truly representative men of the profession in their respective States, men who comprehended the nature of the duties assigned to them, and who were earnestly desirous of maintaining the harmony and best interests of the profession of our country and of the International Congress. Consequently, after giving due heed to suggestions from all parties, the Committee again assembled on September 3, in New York, and with much unanimity so altered the previously restrictive rule in regard to the American Membership as to do away with all delegations from other medical organizations, and to open the doors of the Congress to members of the regular medical profession in this and all other countries, with no other condition than that they enter their names on the register and take out tickets of admission. In other words, the conditions of membership were made essentially the same as in the preceding Congresses in London and Copenhagen. By the adoption of Rule 10 the Committee also made provision for an Executive Committee, not of its own members but of the general officers and presidents of Sections of the Congress itself, with power to take full charge of all the interests and management of the Congress as an independent and self-sustaining organization, from the time of their appointment until the work of the Congress should be completed by the publication of its transactions Having thus revised and adopted such rules as obviated all the objections hitherto made against the previously proposed conditions of membership, and provided for an independent organization of the Congress to be controlled and managed by an Executive Committee composed of its own chief officers, the Committee of Arrangements then selected the general officers and presidents of Sections, so far as was necessary to bring into existence the Executive Committee provided for in Rule 10, and by the adoption of a special resolution, transferred all the unfinished details of organization to the said Executive Committee, with full power to fill all vacancies, add a limited number to its own body, and to take full charge of the affairs of the Congress The power to add to the number of the Executive Committee was given for the purpose of enabling a number of the most prominent of those who had withdrawn their support under proposed regulations essentially different, to accept places on the Executive Committee and again participate actively in all the interests and management of the Congress

It is apparent, therefore, that the Committee of Arrangements, at their September meeting, deliberately and properly so shaped their action as not only to remove all the objections that had been urged against the rules as previously proposed, but also to open the way for all interests in the profession to again unite in sustaining the Congress as a true, independent, international organization, under the exclusive control of an Executive Committee composed chiefly of its own responsible officers It only remains, therefore, for the present Executive Committee of the Congress to fill the vacant places in its own body by offering unreservedly several appointments to as many of the most prominent of those who had previously withdrawn as their places will admit, before filling any other important vacancies If they accept, an end will be put to the dissentions regarding the Congress, without compromising the principles of any party Can there be a reasonable objection to such a course of action!

DR INGLIS'S ADDRESS

It is seldom that one has the opportunity of reading an address before a medical body which contains so much and so varied suggestion as the Address of DR DAVID INGLIS before the Detroit Medical and Library Association, published in this number of the JOURNAL While it is in no sense a valuable contribution to our knowledge of any *one* department of medicine, and was not intended to be, it would be well, indeed, if each member of every medical society in this country could read and study it thoroughly, thoughtfully and carefully, for there are some valuable lessons to be learned from it

The first lesson to be learned from it is—what has been and is often thought to be an impossibility—that a number of medical men can work together in peace and harmony, without wasting the time of the society and lowering themselves in the estimation of their fellows by quarrels and bickerings, usually of an entirely private nature This opinion seems to be so thoroughly grounded in the minds of some members of certain societies that they do not seem to think any meeting of the society complete, or that the time for adjournment has come, until a certain number of epithets have been passed, and at least one committee has been appointed to investigate some one or more members of the society In a few cases the real nature of a medical society seems to be forgotten, and the impression prevails that the reading and discussion of papers is an altogether secondary matter, the time for which is *after* the weekly, bi-weekly or monthly disagreement has been referred to a committee The case of the Detroit Society may or may not be unique, but it is certainly interesting to know that ninety-five physicians *can* lay aside personal animosities in their society, and work together for a whole year without one instance of animosity or contention "The great need of our profession is unity no other profession allows personal animosity to so weaken its power as does our own"

Dr Inglis refers to the large number of pathological specimens that have been presented at the meeting of his society during the past year, in itself a sign of a *working* society It indicates, as he says, an increasing thoroughness of investigation on the part of the members There can be no question that any paper that can be illustrated by specimens is far better if the specimens are presented There is an amount of wholesome proof in a specimen that can never be obtained from a mere statement And it is a matter that must ever be regretted that the laity look upon autopsies with such horror Should the time ever come when they can be educated to the fact that such things are for the good of humanity, the millenium of medicine will not be far distant, for they will then be also educated to many other equally important facts

From the Address we learn that set debates have done much to maintain the interest and promote vigorous life in the Detroit Society This plan might be adopted with obvious advantage by other societies It will at least insure some carefully prepared remarks on one subject, as opposed to the frequent exhibition of careless remarks on many subjects (It is not too much to say that medical society meetings are sometimes hopelessly tiresome on account of the disconnected and frequently valueless remarks of unprepared speakers But this fact has already been pointed out in a recent editorial article in the JOURNAL, and need not be dwelt on further)

The subject proper of the Address is embodied in the question, What is to be the future of therapeutics? In regard to our materia medica, Dr Inglis thinks that the first thing to be done is to establish the place of action of the various drugs "Of many physicians using the same general group of drugs one will achieve better results than the rest, simply by a more accurate judgment of the adaptation of the remedy " This, we think, sufficiently accounts for the amount of what we may call "therapeutic skepticism" among many physicians, of which our author speaks It is scarcely possible to conceive of a physician who can judge of the adaptability of a drug, and who only uses it when it is indicated, who is skeptical as to its value It is undoubtedly the fact that we should "more thoroughly work out the detailed symptoms of each disease " The man who does this, who discards the idea of "a pneumonia," or "a typhoid fever," and treats indications must be far from skepticism And we cannot altogether agree with our author that "we have fallen lamentably behind in the study of symptomatology " It must certainly be admitted that much has been added to symptomatology within the past few years, the case of cerebral tumor so acutely diagnosticated by Hughes Bennett, and operated on by Godlee, is an apt illustration of this fact At the same time, we must agree that the "only basis for a scientific therapeusis is to be found in an exact knowledge of two kinds of facts *first*, what is the precise effect of a drug upon the functions of healthy organs, and *secondly*, what is the effect upon organs whose functions are already disordered?" Here we at once come to the field of Pharmacology, the importance of which was spoken of in this JOURNAL only a short time ago—and it is an importance which can scarcely be overestimated And it is entirely proper to say that the only basis for a scientific therapeusis lies in a greater attention to, Pharmacology, in a closer and a more general study of this branch of medicine

In connection with the importance of a more thorough study of pharmacology, in order to establish a basis for a more scientific therapeusis, we may refer to that portion of the Address which speaks of the use of proprietary medicines While it is a fact, and one to be deplored, that physicians use these preparations, a part of the fault at least must be laid at the door of their teaching And while there is much to be said against the practices of many manufacturing pharmacists, there is also much to be said in favor of some Merck, of Darmstadt, is a manufacturing chemist, but we much doubt if a dozen physicians in all Europe and America would go so far as to say that his methods are objectionable, or that it is improper to use drugs known by his name Our strictures should be directed to the abuse, not the use, of manufacturing pharmacy And it is entirely probable that many of the abuses even of "patent medicines" could be stopped if the State would take a little more interest in the health and lives of its citizens But as one swallow does not make a summer, so one physician who prescribes proprietary or patent medicines does not represent the profession As regards the unfairness of such prescribing to our own pharmacists, it may be said that if they would refuse to sell these goods they would not be sold to the extent that they are now The small pharmacies are much more responsible for this state of things than are any members of the profession, both by selling these articles and by counter-prescribing

Finally, much of the uncertain and unscientific therapeusis of the present day should be laid, we think, at the door of those who are so badly affected with the *cacoethes scribendi* as to publish books of formulæ, in which one formula is given for the treatment of "pneumonia," another for "bronchitis," and so on to the end of the nosological list, as though a disease was always a determinate and definite entity, varying no more than a mathematical problem These books seem to be written in order that the purchaser may use them as he would a dictionary They are dangerous in the hands of a person who needs them, and those who do not need them never buy them

TEMPERATURE OF THE ABDOMINAL WALL IN ENTERITIS OF CHILDREN

PROFESSOR MONCORVO, of Rio de Janeiro, has recently communicated a very interesting note on this subject to the Academy of Medicine of Paris It is now about three years since he commenced a series of investigations on this subject, and some of his conclusions were announced two years ago by one of his pupils He had already applied Peter's method of thermometry of the chest to children, and his satisfactory results induced him to ascertain its value in affections of the abdominal organs—chiefly acute and chronic enteritis Dr Moncorvo has exceptional facilities for work of this kind in his capacity as Professor of Diseases of Children in the Rio de Janeiro Policlinic He makes no statement as to the number of cases examined, but his reputation as an acute clinician precludes any doubt as to the thoroughness or accuracy of his observations

As is the case with most diseases in the Brazilian Capital, it seems, acute and chronic enteritis of children are very frequently complicated by malaria, or are of malarial origin, a fact which North American physicians can readily understand Not only is this the case, but it is not at all infrequent that the malarial intoxication in children seems to be localized in the intestinal canal, and that the diarrhœa and intestinal symptoms are so predominant as to mask whatever other symptoms may be present, and may persist long after all other signs of malarial intoxication have disappeared This being the case, there must necessarily be more or less difficulty in making correct thermometrical observations, since any change in the temperature due to the malarial poison itself must be excluded in taking account of changes due simply to the intestinal affection

Having found by means of a Casella thermometer (in which the reservoir of mercury is encased in wood, so as to be beyond the reach of external causes of error), that the normal temperature of the abdominal wall of young children varies between 95° and 98 8° Fah, according to the age of the subject and time of observation, he classified the patients into two groups in the first were placed those cases of enteritis in which there was an elevation of rectal or axillary temperature—febrile cases, in the second were placed the non-febrile cases, in which there was only a greater or less degree of diarrhœa In the first class of cases the temperature was always very high, the average being 100 2° And as the increased local heat is directly dependent upon the elevation of the central temperature, it is easy to draw conclusions as to the influence of the intestinal affection In the second class of cases abdominal thermometry may also be of great value Moncorvo states that in the greater number of these cases he has been able to note the progress of the intestinal affection by close attention to the thermometric curve His observations show that the surface temperature of the abdominal wall rises a little before the diarrhœa sets in On the other hand, he has found that the thermometer still recorded a temperature of 97 4° when the diarrhœa was said to have disappeared, but investigation would show that the stools were not yet normal The intestinal mucous membrane has not yet regained its physiological condition, and the fact is shown by the thermometer

By this means, therefore, we are in a condition to give a much more certain prognosis, and to know the date of termination of the enteritis During the entire course of the disease the local temperature is more or less elevated according to the severity of the case, the temperature ordinarily varies between 97 4° and 98 8° That the local temperature decreases precisely in accord with the declination of the intestinal affection is a further proof of the value of local thermometry in these cases As the alvine evacuations decrease day by day under the influence of proper treatment, the local temperature falls in a direct and constant ratio

SOCIETY PROCEEDINGS

PHILADELPHIA PATHOLOGICAL SOCIETY

Stated Meeting, October 22, 1885

THE PRESIDENT, J C WILSON, M D, IN THE CHAIR

DR J COLLINS WARREN, of Boston, read a paper on

A COMPARISON OF THE CHANGES IN ARTERIES AFTER LIGATURE, AND IN THE DUCTUS ARTERIOSUS AND UMBILICAL ARTERIES AFTER BIRTH

After the ligature of an artery in continuity, the earliest changes noted are the formation of the thrombi within the vessel and the development of a mass of inflammatory tissue or callus around the point of ligature externally No perceptible cell action can be observed in the inner wall with low powers during the first week, although under favorable circumstances a proliferation to a limited extent of the endothelial cells near the point of ligature can be seen with high powers, and occasionally a few wandering cells may be found to have penetrated the walls of the vessel at the same point In the second week, the bundle of fibres of the adventitia, which were surrounded and held by the knot, have been absorbed, and the two ends of the vessel retract slightly from one another, leaving the ligature imbedded in and partly disintegrated by the granulation cells The walls of each portion appear to form a complete cul de sac, and it looks at this time as if the healing process were complete, but it can hardly be said to have more than begun, as the vessel has not yet passed through what may be considered as the first stage of healing

The beginning of the second stage is marked by an unfolding of the ends of the vessel, the walls separating somewhat after the manner of opening of a bud, which permits the entrance of a considerable quantity of the granulation tissue A disintegration of the thrombus follows, and we have now a fully developed external and internal callus, a small fragment of clot still protecting the latter from the current The ligature may be totally disintegrated and absorbed, or it may have become encysted, or finally it may have created a small abscess about itself which has discharged the fragments of thread through a sinus opening externally The second stage is completed when the internal growth has reached the neighborhood of a branch After this we have an absorption of the callus, which, as in fracture, is only a provisional structure, and eventually the two ends of the vessel are found held together by a slender cord of varying length The walls of the vessel are slightly separated at each end by a a cicatrix consisting of connective tissue externally, inside of which is another layer consisting largely of unstriped muscular fibre, the surface being covered within by a new endothelium The cicatrix is always pierced by a vessel which terminates in a number of capillaries ramifying in the cord We have here a scar made up of three layers resembling closely the three coats of the vessel In the large vessels of amputation stumps we have a somewhat different series of changes Soon after the ligation, the end of the vessel may be seen imbedded in granulation tissue, and containing a thrombus of varying length By the second week there is a marked change in the intima extruding for some distance above the point of ligation, probably to the first large branch or to the origin of the vessel

Examined several months later, when the healing process has been completed, the vessel is found to be preserved in the form of a cord running from the first large sized branch to the cicatrix of the stump, on laying open this cord the walls of the vessel are found preserved, the interior being filled with new tissue, leaving spaces occupied by one or more vessels There has been a process resembling that known as obliterating endocarditis, by which the calibre of the blood channel has been narrowed to an extent to adapt it to the diminished supply In this obliterating tissue we find comparatively large vessels with new cords consisting of the endothelium, an elastic membrane, and also a new media An erosion preparation would best represent the condition of the arteries of the stump at this time The main artery would, after giving off its largest branches, break into a spray of smaller vessels, no one of which would predominate

A comparison of these two modes of healing with the changes in the arterial system seen after birth shows certain resemblances in the two processes The ductus arteriosus, about the time of birth, differs considerably from the structure of the aorta and pulmonary, artery The media is much thicker than in either of these vessels, it is thrown into irregular folds which are increased at the time of birth, and help to narrow its calibre The distinctions between the different layers of its wall are less marked than in other vessels The lamina elastica is indistinct and in places apparently wanting, the media consists chiefly of longitudinal layers of muscular fibres, a few circular bundles existing in the innermost layer A few weeks after birth, a greater portion of the walls of the ductus undergoes hyaline degeneration, the inner or circular fibres of the media alone remaining, these being reinforced apparently by a growth from the media of the larger vessels At this time there is an active growth of long spindle shaped cells, with staff shaped media, at the edges of the media bordering on the opening into the aorta there is also moderate thickening of the intima Eventually the hyaline tissue becomes absorbed and is replaced by a ligamentous band of fibres, which becomes continuous at either end with the media of the larger vessels At the aortic end, in a longitudinal section, we see the media slightly separated At the point of the cicatrix, and between them and also continuous with them, are the longitudinal fibres of the ligamentum arteriosum In this ligamentous tissue and between the edges of the media are numerous new muscular cells, nearer the surface is a layer of thickened intima, which in the aorta has not only connective tissue in it, but also a deep muscular elastic layer, in the centre of the depression marking the site of the cicatrix a small round vessel is given off, which penetrates into the axis of the ligament, where it either loses itself in the capillary network or becomes continuous with a similar vessel coming from the pulmonary artery We have here conditions closely resembling those which have been described as existing in the cicatrix of a large artery after ligature in continuity, namely the slightly separated ends of the media, between which lie the fibres of the ligament connecting it with the pulmonary artery, a new intima and a new growth of muscular cells, and finally a central arteriole The only point of difference is the preservation of a layer of circular muscular fibres which form an outer wall to the ligamentous band, a much needed support at a point exposed to great tension Further protection is afforded by the oblique insertion of the ductus into the aorta, diminishing the pressure upon this particular point At birth the umbilical artery, or that usually called the hypogastric artery, the portion within the abdomen, at its origin from the internal iliac is a vessel of considerable size, being, in fact, a continuation of that artery At its termination in the umbilical wound it has greatly contracted, and is filled with clot for a distance of about one inch

The outlines of the various walls are not as distinct as in other vessels, and the elastic lamina for the most part wanting No special change is seen in the elements of the walls of the vessels, except a slight accumulation of endothelial cells near the apex of the thrombus A few weeks later, there is a distinct growth on the inner surface of the wall up to its point of origin, the terminal portion having undergone a hyaline degeneration and obliteration for a short distance The vessel has greatly contracted throughout its entire length, and its calibre is further diminished by the growth in its interior Cross sections taken from the artery in adult life show the media as a wall thick out of all proportion to the size of the vessel, and consisting not only of its original wall, containing longitudinal muscular cells interspersed with elastic tissue, but also an inner circular row of cells which is provided with a well formed elastic lamina. It seems probable that the greater portion of the hypogastric artery has been preserved, the ligamentous band which extends to the umbilicus consisting of the obliterated extremity of that vessel much elongated during the process of growth. The series of changes which occur in the hypogastric artery after birth is closely analogous to that seen in the main trunk of an amputation stump—a slight portion of each vessel is destroyed, both retract and are attached to the terminal cicatrix by a band of fibrous tissue, both remain as pervious vessels with thickened walls and narrowed calibre. In both the process is not unlike that seen in the so called obliterating or compensatory arteritis. Arteritis hardly seems a term applicable to the changes taking place in normal arteries after birth, nor can the alterations which have been developed through the whole length of a large vessel extending a considerable distance from the seat of inflammation, be strictly regarded as of an inflammatory nature. May not the obliterating growths found to exist simultaneously in terminal arteries in widely removed portions of the body of the same individual also be regarded not as of inflammatory nature, but rather as a secondary and formative process, closely connected with disturbances in the mechanism of nutrition, designed to adapt the vessels to a diminished blood supply?

Dr. S. W. Gross said that, in view of the fact that Dr. Warren's teaching seemed so distinctly opposed to that of other observers, he would like to have some points cleared up. He would, therefore, ask if Dr. Warren held, 1st, that instead of the external coat where it is included in the ligature, sloughing and coming away with the ligature, the pressure of the ligature sets up an irritation which causes the adventitia to return to its embryonic state, with a reconversion, after the ligature has cut through this, to connective tissue; and, 2d, whether the repair of arteries was brought about by the ingrowth of the cicatricial tissue, which he likened to provisional callus, together with some proliferation of the muscular cells of the media?

Dr. Randall said that, as the result of careful study of the subject, he had always found the clot present at first, and that it was honeycombed even in the first few days by the contraction of its fibrin, through the spaces thus formed the blood seemed to be circulating. Cells, either original white cells or of endothelial origin, occupied the walls of these cavernous spaces and seemed to sheathe them. The red cells early melted down into a homogeneous mass, furnishing the framework upon which the reparative tissue was built. The "plastic clot" of some observers he had not seen, the new cells being distributed throughout the old clot as well as upon the vessel walls and not specially collected in the immediate neighborhood of the ligature. The obliteration of the vessel was accomplished by the growth and contraction of the trabeculæ of new tissue built upon the remains of the original blood clot. Even close to the ligature he had not found the vessel walls greatly altered merely showing a great increase in the nuclei and in the number and size of the vasa vasorum, the lamina elastica being distinct, and, as a rule, intact. Toward the end of the first month the new tissue was largely spindle cells, but careful staining had given no suggestion of muscular tissue. But, not having carried his study beyond the first month, he had no data upon this subject, since the development of muscular tissue is claimed to occur only at a later stage.

Dr. H. F. Formad was inclined to favor the views of Dr. Randall. The observation of Dr. Warren that the new-formed connective tissue played the most important part was to him entirely novel. He thought probably the pressure upon the artery from without, with consequent diminution in its lumen, might bring about a condition more analagous to the growth of fœtal life than to inflammation.

Dr. Mears remarked that we are liable to be confused in considering this subject by the presence of the blood in the vessel. So far as the process of healing after ligature is concerned, we may consider only the structures which enter into the formation of the vessel wall, which is complex in character, and composed of connective, plastic and endothelial tissues. Dr. Warren has given us a very clear demonstration of cicatrization as it occurs in these structures after application of the ligature.

Dr. Tyson said the most novel feature to him in Dr. Warren's observations was the part played by the muscular tissue. This apparent increase in the muscular tissue he was inclined to believe was really only a proliferation of intermuscular connective tissue. He was becoming more and more convinced that there was only one kind of inflammation—the interstitial. He feared that he might himself mistake a proliferating connective tissue with spindle cells for muscular tissue. It is true that new-formed capillaries and arterioles have muscular walls, but the development of these seemed to him to be a slower process. He had expected to find a process of repair in the ductus arteriosus different from that in an ordinary artery. This process he had expected would be a true endarteritis, for it seems that the conditions of closure here are rather different from those in the ligaturing of an ordinary artery and in the umbilical artery, where we have also ligation practiced.

Dr. Warren, in closing, said in cases where there is much breaking down and little repair, there might be a sloughing of the external coat, yet, in his experiments, this part of the arterial wall did not slough, but was simply absorbed by the granulation tissue, as is the ligature itself in some cases. In the normal condition even, the elastic lamina is not a perfectly continuous plate, he did not refer to these breaks, however, but to numbers of little ruptures incident to the pulling out of the wound of an artery in the act of ligature—however, this need not necessarily occur. He had not attempted to identify anything like muscular tissue early, this could not be recognized till we had a permanent cicatrix formed. He had carefully eliminated all sources of error, and it seemed to him that in almost all cases there was a considerable number of these muscular cells. The layer was not always as well marked as in his diagrams, especially was this true of human cases, but these had all been in alcohol for some years, of the fresh specimens he had selected only those in which he had considered the process complete In a specimen which he had here to night, through an opening in the lamina elastica cells could be traced from the muscular layer, those in the inside resembling exactly those outside These facts, together with the fact that we have normally a few muscular cells inside of the lamina elastica, lead him to believe in the proliferation of the muscular tissue The disintegration of the blood clot is accomplished by granulations growing inward from the callus, there being two sets of blood vessels, one in the granulations, the other, (blood spaces, rather) in the clot itself, these unite about the end of the first or second month

---

Stated Meeting, November 12, 1885

THE PRESIDENT, JAMES C WILSON, M D, IN THE CHAIR

DR FUSSELL presented

SPECIMENS FROM A CASE OF MASTOID DISEASE

The patient was a male, æt 25 years Never had scarlet fever Since vaccination at the age of 5 years, has had occasional attacks of suppuration of the middle ear General health was good Was first seen by Dr Fussell July 14, for several weeks he had had earache, with one slight chill When seen hearing was very poor, membrana tympani opaque, swelling and redness over left mastoid process and temperature elevated His general condition grew worse, and an incision was made over the mastoid process, but it failed to find pus On extending this incision a few days afterward, pus flowed freely, and he was much relieved He afterward grew worse, fell into a typhoid condition and died July 24 Before death, blood oozed freely from the cutaneous surface At the autopsy, the mastoid cells were found filled with pus, in the inner half of the process was a large irregular cavity filled with a pultaceous mass of necrosed bone, this communicated with the middle ear The walls of the lateral sinus were thickened, easily detached from the bone, and the seat of a purulent inflammation The sinus contained no thrombus The meninges over this spot were discolored, though not inflamed, but there was a patch of inflammation over the anterior edge of the left lobe of the cerebellum Brain substance was normal Remaining organs were not remarkable, except the right lung, which contained in its apex two small abscesses From the condition of the sinus, the reporter thought there had been an actual admixture of pus with the blood

DR ~~JOHN H~~ PACKARD presented

[illegible]

AN ANOMALOUS LUNG

It was taken from the body of a negro who died of Bright's disease From the inferior surface of the lower lobe of the right lung springs a tongue shaped process of pigmented, crepitant lung tissue two and one half inches long and two inches wide at its base, resting upon the diaphragm, its upper surface being in apposition with the under surface of the lower lobe Dr Packard had recently seen in the body of another negro a similar anomaly, except that the process was smaller and situated more anteriorly

DR J H MUSSER presented a

CYSTIC KIDNEY

It was the right kidney, and was taken from the body of a man, æt 72 years, who died of apoplexy The kidney was cirrhotic and contained two cysts, the larger occupying the upper one fourth of the organ Its walls were firm, and it contained clear fluid in which floated cheesy masses, which the reporter thought were degenerated pus When first seen, the patient was passing small quantities of bloody, highly albuminous urine, and complained of pain in the right renal region These symptoms were apparently due to an acute process grafted upon the chronic lesion The blood and most of the albumen disappeared, but the pain persisted Was this pain due to the cyst?

DR MUSSER presented also a

CARCINOMA MAMMÆ

removed from the body of a woman, æt 75 years The breast had been injured eight years ago, and three years afterwards the tumor noticed There was never any pain in the tumor The lymphatic glands of the axilla were involved In addition there was a large lipoma of the back of the arm She had frequent attacks of severe pain in the tibia and left parietal bone, apparently due to periostitis, and not to any secondary growth There was no syphilitic history

DR MUSSER also presented

SPECIMENS FROM A CASE OF DIABETES MELLITUS

The patient was a female, æt 43 years Had a vesico-vaginal fistula for fourteen years Diabetes had persisted, without apparent cause, two months Patient was unusually fat, and had lost no weight She died of coma Temperature in the abdominal cavity three hours after death was 107 8° F Liver large and fatty, gall bladder contained thirty stones Kidneys fatty Pancreas normal Blood had a most marked lactescent appearance, and after standing twelve hours globules of fat collected on its surface Lacteals in the mesentery engorged with chyle Microscopic examination of lungs showed no fat emboli In the urinary bladder was a large phosphatic calculus Dr Osler thought the peculiar condition of the blood was what we should find normally in a person dying during digestion, and called attention to the fact that very frequently in diabetics there is the engorgement of the lacteals

DR MUSSER also presented a

FŒTUS PAPYRACEUS

The mother was delivered in the morning of a mature living child, and in the evening of this fœtus It is apparently of the fifth month of pregnancy, and with the exception of shriveling and paling of the skin, is quite normal The cord is thin and soft, its length unknown The placenta is thin, flat, compact, and whitish yellow, apparently having undergone complete fatty degeneration

Dr John B Roberts presented a

SMALL TUMOR, THE SIZE OF A HICKORY NUT, REMOVED FROM THE BACK OF THE WRIST OF A YOUNG MAN

It had the clinical appearance of an ordinary ganglion, but attempted evacuation showed it to be solid It was then enucleated and found to have been developed within the theca of the tendon going to the middle finger, and probably between its fibres The great rarity of solid tumors in this locality was mentioned

Dr Wm Osler asked if the patient had a rheumatic history, although this specimen was rather large for a subcutaneous nodule occurring in rheumatism

Dr Roberts knew nothing of the history

Dr C B Nancrede presented *Fluid from an Encysted Hydrocele*, which fluid contained large numbers of dead spermatozoids

Dr W E Hughes presented a

PRIMARY CARCINOMA OF THE LIVER

Female, æt 58 years A daughter died of cancer of the uterus She had been in good health till 18 months ago, when flesh and strength began to fail With this there were occasional attacks, lasting about a week, of headache and sick stomach, followed by diarrhœa There was pretty constant lancinating pain in the hepatic region Five months ago she had an attack of jaundice (her only attack), lasting two weeks, and at this time a humor was detected in the liver At the autopsy the liver was found much enlarged, and scattered through its substance were firm cancerous nodules varying in size from an orange to a pin head In addition to these there were several cysts, one in the left lobe two inches in diameter, filled with clear fluid The liver substance between the cancerous nodules was normal The gall bladder was full of healthy bile and the ducts patulous There were no enlarged glands in the fissure of the liver, but the retro peritoneal and mediastinal glands were increased somewhat in size, and the seats of secondary deposits, with these exceptions these was no growth outside the liver The intestines were crowded into the left side of the abdomen by the enlarged liver The stomach was very small, only one inch in diameter at its fundus There was an intussusception, three inches in length, at the ileo cæcal valve, which, on being reduced, which was effected with some difficulty, showed the opposed surfaces of peritoneum covered with lymph

Dr H F Formad presented specimens and read a paper on

AN ANALYSIS OF 250 AUTOPSIES ON DRUNKARDS, ILLUSTRATING THE MOST PROMINENT ANATOMICAL LESIONS OF CHRONIC ALCOHOLISM

He considered the most conspicuous lesions to be cyanotic induration of the kidneys, fatty infiltration of the liver, and mammillated stomach His cases had been those in which there had been a history of a long-continued series of debauches, the subjects often dying in one of these debauches, and did not include moderate drinkers or those who perished after imbibition of an enormous quantity of alcohol without any previous chronic causes He thought that the exposure, irregularities of diet, etc, incident to a state of drunkenness, had much, probably more than the alcohol itself, to do with the production of the lesions, but it was not at all possible to separate one from the other He gave a long list of lesions considered by various authors to be results of chronic alcoholism, among which the cirrhotic liver, with contraction, held a prominent place He had had himself at one time considered cirrhosis a very frequent, if not almost necessary, concomitant of long-continued excessive use of alcohol, and had even testified in court that a certain person was not likely to have been a hard drinker because at the autopsy no cirrhosis of the liver was found He had thought, too, that the connection between the two was so close that it was impossible to have a case of cirrhosis without a previous history of alcoholism, as is held by various authors, Therefore, it was surprising to him to meet in his 250 autopsies with only six cases of cirrhosis of the liver with contraction, In 220 cases the liver was considerably or even very much enlarged, the enlargement in most cases proving to be due to a fatty infiltration Cyanotic induration of the kidney, and chronic gastritis with mammillation of the stomach, were found in nearly every case This cyanotic induration is peculiar, and differs from the cyanotic induration due to heart disease At a future time he will give a detailed account of the above lesions, and a more extensive analysis of the cases

Dr James Tyson could not speak from a systematic observation of a large number of autopsies in the cases of confirmed drinkers, but he remembered distinctly being surprised, in several cases, by the absence of cirrhosis where he confidently expected to find it

Dr Wilson said that Anstie, in the article on alcoholism in "Reynold's System of Medicine," had called attention to the comparative infrequency of contracted liver in confirmed drinkers This observer, in an extensive out patient practice in London, had seen large numbers of cases of alcoholism, but very few among them presented the physical signs of cirrhotic (contracted) liver The experience of the staff at Blockley Hospital confirms this view There many of the patients are soaked with alcohol, but even among those whose death is directly or indirectly due to alcoholic excess, fatty liver is much more common than contracted liver

Dr Osler thought the experience of pathologists and morbid anatomists with histories of patients not of the most satisfactory character, he often having had cases to dissect where he knew very little of the history Before saying these cases were chronic alcoholics Dr Formad should present more specific statements about them His own experience with livers, in a large number of autopsies on cases of chronic alcoholism, had led him to divide them into four classes 1 Those in which the condition of the liver is pretty satisfactory, some of these cases may take alcohol for many years and yet the liver pass muster 2 Fatty cirrhotic livers, the cirrhosis may not, perhaps, be distinct to the naked eye but plainly shown by the microscope, this is the largest class 3 Hobnail livers, these he would say were much more common than in Dr Formad's series 4 Hypertrophic cirrhotic livers The difference between his observations and those of Dr Formad might possibly be accounted for by a difference in the form of alcoholic beverage taken He had not observed the special form of kidney described by Dr Formad In reply to a question, he said in order of frequency he would place them fatty cirrhotic, hobnail, hypertrophic cirrhotic, apparently normal

Dr S Solis Cohen said that there were certain theoretical considerations which suggested themselves in this connection The text books teach that the lesions of alcohol are of two kinds, sclerosis and steatosis It is known that in some organs the fibrous change precedes the fatty one The latter is the higher grade of degeneration The subjects of Dr Formad's autopsies were confirmed whisky soakers, in whom one would expect to find more intensity of degeneration than in those whose use of alcohol, though persistent and excessive, was not so outrageous Another point which had not been alluded to was the fact that some lesions might result from a local action of the poison upon the tissues, while others might be due to its systemic action No study of the subject could be complete in which these points were overlooked

Dr B A Randall suggested that the point touched upon by Dr Osler—the character of alcoholic beverage—might be very important In Vienna, among beer drinkers, he had found the fatty liver much more common than the cirrhotic, while in England, where much gin is drunk, and he should suppose in Scandinavian countries, where they drink altogether strong spirits, the cirrhotic liver is doubtless comparatively frequent

Dr Musser had recently had to go over the records of the Pathological Society, especially in liver diseases, and had found the total experience of different observers the same as Dr Formad's, and also in those cases cirrhosis was caused not so much by heavy drinking as persistent drinking of spirits on an empty stomach

Dr Formad presented the

SAC OF AN EXTRA UTERINE PREGNANCY

The woman from whom this was removed had not suspected that she was pregnant She was in perfect health until twelve hours before death, when she was suddenly seized with excruciating pain in the left groin, rapidly followed by collapse On opening the abdomen it was found to contain at least a gallon of partly clotted blood About the middle of the left fallopian tube was the sac with a rent in its posterior wall This sac was one inch in diameter and contained clotted blood and placental tissue The uterus was twice its normal size The fœtus was not found

Dr Formad also presented

AN ANEURISM OF THE ASCENDING AORTA RUPTURING INTO THE PERICARDIUM

The patient was a laboring man and had considered himself in perfect health He died very suddenly The aneurism, half an inch in diameter, was situated just above the posterior aortic leaflet and had broken through the wall of the aorta at the point where it touches the descending cava The cavity of the pericardium was fully distended with clotted blood

---

OBSTETRICAL SOCIETY OF PHILADELPHIA

Stated Meeting, Thursday, November 5th, 1885

The President, B F Baer, M D, in the Chair

Dr John M Keating, M D, read a paper on

LYMPHATIC LEUKÆMIA IN CHILDHOOD

The short paper which, by invitation, I propose to read to you this evening will, I am sure, prove of interest on account of its clinical rarity and the infrequency with which we meet the disease in current literature To make the subject more interesting and more lucid, at the risk of recalling to your memory matters already familiar, I will premise with a few remarks on the blood in health in children and briefly with its diseases

There is a uniformity of composition of healthy blood which is curious This is brought about by that equilibrium which is so striking in textures regulated by the production and waste The blood corpuscles which we are called upon to study are 1 The red, of which there are floating in the plasma about 5,000,000 to the cubic millimeter These are about 1 3200 of an inch in diameter 2 The white, of a diameter of 1 2500 of an inch, having the proportion of *1 to every 300 or 500 red* 3 The neucleated red found in the fœtus and infant, and disappearing about the third or fourth year of life These may contain one or more nuclei in some instances protruding from the cell They measure from 1-1400 to 1-2000 of an inch 4 The *hemato blasts* of Hayem—"Small discoid, colorless, corpuscula, normal constituents of healthy blood—in drawn blood they aggregate in clumps known as Schultze's granule masses" As to the origin of the red corpuscles I will quote "They are developed from colorless corpuscles, the lymph cells or leucocytes The nucleated corpuscles of the embryo also aid in the development These nucleated cells disappear early in childhood, and are therefore only in the red marrow" It is Osler's opinion that "they apparently originate from colorless marrow-cells which gradually become more homogenous and hemoglobin develops in the protoplasm, the nucleus degenerates and disappears, when the cell has the appearance of an ordinary red disc" Possibly these nucleated cells may give birth to red cells by the process of budding The relations of the cytogenetic organs to blood formation has always been somewhat debatable ground, the present state of our knowledge may be formulated about as follows "The spleen certainly takes part in the development of colorless corpuscles, but its participation in red blood formation is more doubtful, though the opinion prevails widely that the spleen is one of the important organs in the formation of red corpuscles, the evidence for this belief is of an exceedingly scanty nature

"The lymphatic glands and adenoid tissues in other regions are the seat of constant production of colorless corpuscles, but of their relation to the red corpuscles there is the same lack of information as in the spleen "

Neumann and Bizzozero pointed out the fact that the red marrow appears to be the seat of blood formation In the adult it is the only region in which embryonic or nucleated red cells are found In the young the marrow fills the long bones It is Osler's opinion, and I have quoted from his recent admirable articles on this subject, that the evidences of the development of red corpuscles in the marrow rests upon the constant presence of nucleated cells infiltrated with hemoglobin, and of their fusion In excessive hæmorrhage, natural or induced, it appears to undergo active proliferation, and it is an interesting fact to notice the marvelous rapidity with which the red corpuscles are reproduced after a hæmorrhage The amount of hæmaglobin in healthy blood, according to Preyer, is 13 45 grammes to 100 This relation is important for us to have in mind, as it proves an index to treatment The color test being used, I feel certain that before long it will be a matter of more than ordinary interest to the general practitioner when the means of applying the color test shall be generally adapted, as has been done already to daily practice In the new-born the blood is said to amount to one-tenth part by weight of the body In the adult, one-twelfth to one fourteenth I may also note that it has been shown by Neumann that the liver in the embryo may be the seat of the formation of corpuscles, though in the adult it is the seat of their destruction

Let us now take up the subject of anæmia in children Were I to attempt to do justice to this condition, it would take far more time than your patience would allow We will omit that caused by hæmorrhage, by toxic agents by mineral poisons, by miasm, by syphilis, in which we have an increase in the watery elements, and a diminution in the albuminous, and consider that dependent upon disorder of the blood-making organs themselves, and here we meet with a most difficult problem By the blood-making organs we understand the spleen, the lymphatics tissues and the bone marrow, remembering of course that some of their tissues have also to do with blood destruction We, however, definitely know that an increase in the cytogenetic tissues is associated with disturbances in blood formation The organ undergoes a hyperplasia, particularly of its fibrous constituent, and the marrow of bone changes from normal appearance to one like spleen-pulp The blood of all patients suffering from anæmia presents a reduction in the number of red corpuscles This is true, no matter whether the seat of the trouble is located in the spleen, the marrow of bone, or in the general lymph glands, the white cells may or may not be increased, the clinical features of a case of anæmia will be strikingly alike, let the cause be in any one of the blood making organs, all the more important symptoms will be present To quote once more, such common features would be "the progressive anæmia with its group of circulatory symptoms, the irregular febrile reaction, essential fever of anæmia, the absence of marked emaciation, the tendency of serum, the progressive debility, the recurrence of hæmorrhages, gastric and intestinal, gastric and intestinal disturbances, and the resistance to treatment " These affections that have so many symptoms in common are grouped as distinct diseases under the following heading, viz leukæmia, Hodgkin's diseases (anæmia lymphatica, splenic anæmia, and idiopathic anæmia)

Leukæmia signifies a hyperplasia of the blood-making organs with anæmia and an increase in the colorless corpuscles Of this form we have three varieties, the splenic, lymphatic and medullary Leukæmia is present at all ages, the youngest case recorded by Osler being an infant of eight months The chief symptoms are insidious onset, anæmic appearance, bleeding at the nose or other hæmorrhages, frequent diarrhœa or other gastro-intestinal disturbance The spleen is enlarged, gradually increasing in size from the onset, and finally it may interfere with the circulation and cause difficulty of breathing by pressure Late in the disease the liver is also enlarged The lymph glands in most cases are affected and sometimes slightly enlarged The tonsils and follicles of the phanynx are usually enlarged The lymph glands of the intestines and of the peritoneum are always enlarged Fever is present and increases as the case progresses, and is usually of the remittent type But the most important aid to differential diagnosis is the microscopical examination of the blood This I give in detail in the case that forms the basis of this paper which I will now relate I was called in consultation by Dr J W Gadd, of this city, to see the child with him the latter part of last month, and the following notes were given by Dr Gadd

Mamie McC , aged 4½ years, had measles when about 2 years old, and from which she recovered without complication or sequelæ About August, 1884, the tissue surrounding the eye became much inflamed and swollen The swelling increased so much that the eyelid could not be opened for several days After continued poulticing an abscess formed and broke, discharging a quantity of pus and continued to do so for a considerable time, but finally healed up with small scar The child never complained, yet was pale and did not want to play as other children did I believe this was more due to her disposition than to the effect of any disease About midsummer there appeared a rash, all over her body very thick, and resembling the eruption of measles, as it matured it was crowned with small white caps or heads The epideim soon came off in large patches The child had no fever As the eruption faded the mother observed purplish spots, like bruises, making their appearance These were considered by the parents to be bruises due to falls No attention was paid to her condition until September 28th, when I was called in the evening to arrest an epistaxis which had existed most of the day I found the child lying on a sofa, though able to sit up, with blood slowly trickling from the nose, each nostril contained a large clot The child appeared very anæmic, with slight fever, yet did not complain of anything except weakness The mother stated that the appetite had been very poor for some time past The bleeding from the nose was very easily arrested by removing the clots and packing with a strip of lint in each nostril I also gave the following internally

℞	Acid gallic	gr xxx	
	Acid sulph , dil	♏ xl	
	Ext Ergot, fl	♏ xxx	
	Syrupi	℥i	
	Aquæ q s ad	℥ij	M

S 1 teaspoonful in water every hour

Also ordering her as much milk as she cared to take, with the precaution that she should sip it slowly Tuesday morning I saw her and found her in the same condition, except that the epistaxis had been arrested I thought it best not to remove the lint packing It now being daylight, her mother called my attention to the bruise-like spots over her body There were in size from that of a two cent piece to that of a fifty cent piece, and two of them, situated one over each trochanter, were as large as silver dollars, with the exception of these two they were all, I believe, situated over the soft parts, such as over the belly of a muscle, and varying in color according to age, from a bluish black to a greenish yellow She still had some fever, and her heart was more rapid in its action than normal, hence I gave her, in addition to the gallic acid and ergot mixture, the following mixture

℞	Liq potass cit	ʒj	
	Spts æth nit	ʒij	
	Tr aconiti rad	gtt xv	
	Syr limonis	ʒiv	
	Aquæ q s ad	℥ij	M

S 1 teaspoonful every two hours

Wednesday morning I found her feeling somewhat better, though still having slight fever, pulse 124 per minute and moderately weak in character I did not detect any abnormal heart sounds I renewed the lint packing without any further bleeding and with much relief to the patient I then ordered tr digitalis in three drop doses every three hours, and also the following mixture

℞	Quin sulph	gr viij	
	Tr ferri citro chlorid	ʒj	
	Syr tolu	℥j	
	Aquæ	℥vij	M

S 1 teaspoonful every three hours

Thursday I found the patient, to use her own language, well, evidently much better Fever had entirely subsided, the heart's action remained abnormally rapid The cervical glands were slightly enlarged, but no enlargement of the tonsils and apparently no inflammation of the fauces Treatment was continued with the addition of more nourishing food, beef tea, wine-whey, etc The child seemed so much better that I said it might come to my office the next morning instead of my going there Later in the same evening she took a sudden change for the worse, but I was not sent for until Friday morning Now the patient was suffering from high fever, 104° F in the axilla, pulse 134 per minute, compressible The cervical glands much enlarged and very hard, the bowels had not been moved for twenty-four hours, the tonsils were but very slightly swollen, there were no patches on the throat Thinking that possibly she was developing a malignant form of diphtheria, I at once put her on the calomel treatment until the bowels were moved, giving her three grains repeated in two hours, and then two grains, when the bowels were moved freely and the calomel stopped I also gave suppositories of two and a half grains of quinine every two hours, also

℞	Liq ammon acet	℥j	
	Spts æth nit	ʒij	
	Syrupi	ʒiv	
	Aquæ	ʒij	M

S 1 teaspoonful every two hours

I continued the tr digitalis in five drop doses every two hours I also applied hot flax-seed poultices to the enlarged glands, and at noon plenty of beef-tea and milk, but the child did not care for food, and it was difficult to get her to take any nourishment At mid day I noticed for the first time—although I had carefully and frequently listened before—a systolic heart murmur The temperature was but little affected during the night and next morning (Saturday) at 7 30 I found it as high as ever, 104° F in the axilla Fearing that endocarditis had set in, from the continuance of high fever and the heart-murmur, I at once applied a mustard plaster to the pericardium, followed by a poultice, giving internally potassium iodide and ammonium carbonate, continuing the digitalis until noon, when I met Dr J M Keating in consultation

Physical signs showed, in addition to what has been mentioned, an enlargement of the spleen, yet there was no history of malaria Dr Keating did not think that endocarditis had set in, believing the murmur to be rather of a hæmic character, yet as a stimulant to the heart suggested the application of a blister, internally, very small doses of Basham's mixture every three hours, with the free use of alcohol, beef juice in small amount, etc The temperature to be kept down to 102° or lower by means of the wet sheet On examining a specimen of the urine which had just been passed, and the first that I had been able to obtain, I found it to be of sp g 1016, of a light straw color, free from albumin and sugar The child could not retain either medicine or beef juice The nose again commenced to bleed, to prevent which I again plugged the nostrils Soon large clots of coagulated milk were vomited, the result of having been given by half cupfuls at a time, which was entirely contrary to my direction Her stomach soon became settled and she took brandy and crushed ice in small quantities We wrapped her up in a wet, sheet and then poured cold water over her until the temperature came down to 101° in the axilla, which required about thirty five minutes She was then wrapped in a blanket In two hours the temperature was again 104° We gave several of the wet packs during the afternoon and evening, and, notwithstanding we were at the same time giving 2½ grains of quinine every hour by suppository, the same rise in temperature was observed after each During the night she took her medicine regularly, alcohol and water and beef tea were also administered Sunday morning (the day of her death), I found her to all appearance bloodless, pulse rapid and small, respiration shallow and too frequent, temperature rising to 104° after the wet pack, as before. During Saturday night she had removed the packing from the nostrils, which allowed a slight oozing of blood, and this having been swallowed gave rise to vomiting of clotted blood, this continued, after the bleeding from the nose had been again checked, at intervals of ten to fifteen minutes, which gave me the belief that there was a slight hæmorrhage into the stomach, these clots differing somewhat in form and color from those which I ascribed to the epistaxis. The heart became more rapid—138 per minute—and the patient gradually sank. She died at 6.30, P.M., in great agony, giving two or three shrieks, which were quite loud, considering her weakened condition. Dr. Keating remarked that Dr. William Osler had kindly examined for him a slide of blood and reported as follows: Examination about three hours after withdrawal. *Red corpuscles* present, no special alteration in size or shape. *Colorless corpuscles* greatly increased in number, fifty or sixty in each field of the No. 7 Hartnack. They present remarkable variations in size, many are small, not more than one third the size of the larger forms, they resemble the smaller colorless cells which Virchow has noted to be present in cases of lymphatic leukæmia. Many of the cells have feeble amœboid movements. *Neucleated red corpuscles* not observed. *Schultz's granule masses* (often abundant in leukæmia), scanty.

The relation of the increase in number of the colorless corpuscles above noted to the increase in size of the glands and cytogenetic tissue is indeed hard to solve. The increase in size and hyperplasia of the spleen in leukæmia and anæmia are histologically identical. We must remember that the view that colorless corpuscles are changed into red corpuscles is not fully established, hence, also that it is not proven that the excess of colorless corpuscles is due to failure in the change to red ones. In such cases the prognosis when the disease is detected at its incipiency may be favorable under rigid treatment of fresh air, suitable diet, iron, quinine, and arsenic and salt bathing, but in marked cases that have existed for some time with advanced symptoms, the result is fatal.

DR. WM. GOODELL inquired if there was any distinguishing points between purpura hæmorrhagica and lymphatic leukæmia. If there is a deficiency of red blood corpuscles, why do red patches occur so easily?

DR. KEATING remarked that the subject under discussion was dependent upon certain conditions which physiologists are still debating. In leukæmia we have as a diagnostic feature an involvement of the lymphatic system more or less, a hyperplasia of the tonsils, lymphatic glands of the peritoneum and of the intestines, also of the spleen and bone-marrow, all of them being more or less connected with red cell formation, but the principal diagnostic point is the increase in number of the colorless cells as is noted in Dr. Osler's report just presented. The hæmorrhages in these cases are possibly due to a diapedesis or capillary rupture. In what is known as purpura hæmorrhagica, there is an exudation of blood-cells; or the hæmatin from their destruction, into the rete mucosum and the papillary layer of the cutis, of course capillary ruptures may occur with profuse hæmorrhage. The blood cells (red) are usually diseased, they become crenated, or they cease to form rouleaux, and possibly the plasma may be at fault. The microscope alone will reveal the distinguishing features. Purpura may be considered a symptom accompanying a dyscrasia in which the blood itself is involved, not merely the organs of its production.

(*To be concluded.*)

DOMESTIC CORRESPONDENCE

NEW YORK LETTER

(FROM OUR OWN CORRESPONDENT.)

New York State Medical Association—Relation of the State to Medical Education—Is Tubercular Consumption ever Inherited—Discussion on Pneumonia, Is it a Local Disease? Is it due to Micro-Organism? Its Fatality, Remedies for It, Blood-letting, Alcohol, Antipyretics.

The meeting of the New York State Medical Association, which was held November 17, 18, 19 and 20, was in every way a most gratifying success, and an enormous amount of scientific work was accomplished at it. During the four days there were no less than eight day sessions and three night sessions, and there was quite a full attendance at all of them.

The address of the President, Dr. John P. Gray, of Utica, was devoted principally to the "Relation of the State to Medical Education," and in it he took very strong ground against the organization of a State Board of Medical Examiners. To take away from corporate schools of medical learning, which were the property of private individuals, and the students of which paid for their own tuition, he said would indeed be an anomaly in political economy. It would only tend to degrade the schools, and would transfer students, who came to New York from all parts of the country and from foreign countries, to Boston, Philadelphia and other cities. The same opposition to a State Board of Examiners was also expressed in the address on State Medicine, delivered by Dr. Alfred L. Carroll, Secretary of the State Board of Health. From his official intercourse with the physicians of the State it was evident, however, that the medical schools turned out many incompetent men, and a considerable portion of the address was devoted to the need of a preliminary education and a more thoroughly enforced scientific training of candidates for the degree of Doctor of Medicine.

Among the papers read on the first day was one on "Tubercular Consumption; Is it ever Inherited?" by Dr. H. D. Didama, of Syracuse. The principal conclusions of Dr. Didama were that tuberculous disease is not inherited, that if a special tendency to the disease is transmitted, the term *liability* expresses the idea better than *tendency*, and that two conditions are always indispensable for the causation of the disease, viz.: abundance of bacilli and an inviting asylum for their development, whether the susceptibility is inherited or acquired To the discussion of the subject of shock, short papers were contributed by Drs Frank H Hamilton and E S F Arnold

Undoubtedly the most notable portion of the scientific proceedings during the whole session was the general symposium on the subject of pneumonia, which came off in the evening of this day The discussion was opened by Dr Austin Flint, in a brief paper in which he propounded eight questions relative to the nature, pathology, prognosis and treatment of acute lobar pneumonia, and in a clear and judicial manner brought out the most important points bearing upon the various problems connected with the disease In the course of it he mentioned that he had never seen a case of relapse in this affection, and expressed his conviction that there was no tendency whatever to relapse in it, a point which he considered to argue strongly in favor of pneumonia's being a continued fever The occurrence of an attack of it, however, did not diminish the susceptibility to a future recurrence of the affection, a point in which it differed from the ordinary essential fevers A few years since Niemeyer and his school had attempted to show that pneumonia often led directly to pulmonary phthisis, but Louis, more than half a century ago, had satisfactorily demonstrated that it was characterized by no such tendency, and later researches had abundantly confirmed his results

The first question, Is lobar pneumonia a primary local inflammatory disease, or is it an essential fever, the pulmonary affection being secondary thereto and constituting its anatomical characteristic? was discussed by Drs Henry D Didama, of Syracuse, and F W Ross, of Elmira, in excellent papers in which they both took the ground of its being an essential fever, and presented in a concise manner the various arguments in favor of this hypothesis Dr Didama remarked that three views regarding the nature of this disease had widely prevailed at different times The first was that, preceding the *pneumonic* attack, there was a morbid increase of fibrin, with the addition of a certain unknown element, in the blood, the accumulation going on until there was an explosion in the form of a chill, followed by fever, and that the lungs had a special affinity for the blood in this condition The objection to this view was that the preexistence of hyperinosis was merely assumed, and not demonstrated That it was erroneous was shown by the fact that in acute rheumatism hyperinosis constitutes a marked feature, but it does not produce pneumonia The second was the inflammatory view, which regarded the affection as an ordinary phlegmasia, in which there are predisposing and exciting causes, and in which, when the inflammation has run its course, the disease ends But, he contended, the ordinary causes of phlegmasia were not sufficient to excite pneumonia, as was the case in bronchitis, however, it could not be produced experimentally, and it differed from the ordinary inflammations in the marked severity of the chill inaugurating it and the high grade of fever attending the attack, which, in the early stages, at all events, could not be accounted for by the local trouble present

The third view was that it was an essential fever In connection with this he remarked that the belief seemed to be gaining ground that all communicable diseases are of germ origin If, however, pneumonia be a constitutional affection, why are the lungs always implicated, and why, as is most frequently the case, but one lung, and only one lobe of that? In reply to this question, he said that many pathologists considered that each essential fever has its special local manifestation, well marked instances of which could be found in the case of typhoid fever, epidemic cerebro-spinal meningitis, glanders, and other infectious diseases In most of the general affections which had a local predilection, however, a number of organs were likely to be involved in the diseased process This was true also of pneumonia in which the kidneys, liver, spleen and heart were not infrequently implicated Among the objections which had been raised to this disease being one of the essential fevers was, that in the latter there was a diminution in the quantity of fibrin in the blood, while in pneumonia there was an enormous increase of fibrin But Andral had shown that the same thing was true of variola in the early stage Again, it was objected that pneumonia predisposes its victim to a recurrence (not a relapse), but the same thing was true of cholera, erysipelas, diphtheria, and other similar affections Having referred to the fact that the investigating committee of the British Medical Association had reported that cases of pneumonia have been observed in which it was impossible to detect any breath in the lung, he said, in conclusion, that the labors of Jurgensen, Eberth, Leyden, and others, including our own Flint, had so far established the true nature of this disease that it could no longer be doubted that it was *really an essential fever*

Dr Ross said that at the present time he thought the majority of practitioners would pronounce pneumonia to be a local disease of the lung For himself, however, the more he saw of it the more and more convinced he became that it was undoubtedly constitutional Thus, it selected by preference certain ages and conditions, and there was no ratio, as a rule, between the severity of the attack and the amount of pulmonary tissue involved, except in those cases where a very large amount was implicated, where the damage to so extensive a portion of the lungs might by mechanical means produce disastrous results Ordinarily, the fever and constitutional disturbance were the elements to be taken into consideration, and, when the temperature fell, the whole aspect of the disease was changed The patient was then on the high road to recovery, notwithstanding the fact that a physical examination showed that the local trouble was as serious as ever, or even more aggravated than before The case might be different in pneumonias which followed an injury or occurred in connection with some long-continued pathological condition, but Dr Frederick Roberts, who did not himself believe that the disease was an essential fever, expressly states that such attacks are not those of acute croupous pneumonia Dr Ross went on to say that whenever in the latter affection we find the fever not too high and the pulse moderate, we can look for a good result, notwithstanding the condition of the lungs Again, the kind of treatment which is most efficacious is that required for a constitutional rather than a local disorder The common selection of the right lung also strongly points to a constitutional origin, just as the intestinal lesions in typhoid fever do In the same way it is noticed that the eruption of variola constantly appears first upon the face, and that it shows a special preference for the molar portion of the latter Diphtheria and scarlet fever, as well as other constitutional affections, also have their peculiar local manifestations In conclusion, he remarked that a disease which had the essential features of a continued fever, which could not be artificially produced, and in the treatment of which the condition of the heart was more of a guide than the lungs, ought rightly to be classed among the continued fevers

Dr E G Janeway spoke on the vexed question "What facts and rational grounds, with our present knowledge, can be cited in support of the doctrine that acute local pneumonia depends on the presence of a specific micro organism?" Having stated that he had been prevented by a severe attack of the disease in question from making a number of personal investigations which he had contemplated in connection with the present discussion, he proceeded to refer to the labors of Klebs, Eberth, Leyman, Friedlander and others, in establishing the identity and etiological efficiency of the pneumo coccus While expressing his conviction that this microbe was really the causative agent in pneumonia, he thought it well to call attention to the fact that Dr George M Sternberg, U S A, had recently claimed that the pneumonia-coccus of Friedlander is identical specifically with a micro coccus previously described by himself, which is commonly found in normal human saliva Dr Sternberg, however, had not, it seemed, made any parallel cultures of the two microbes In conclusion, Dr Janeway stated that three days before the meeting he had injected three rabbits with an old pneumonia culture, and that one of them died The examination showed that there was inflammation of both pleuræ, and that the lung on the side of the body which had been injected was inflamed and solidified, while the other lung was collapsed and exhibited petechial points through its tissues There was, therefore, undoubtedly septicæmia with pneumonia (The specimen was exhibited) The other rabbits are still alive, but one of them was ill and likely to die A strong case, he said, could be made out in favor of the pneumo coccus as the cause of pneumonia The question was, Is the pneumonia obtained by experimentation with this a fair representation of pneumonia as it occurs in the human subject? The nature of the proof demanded for the pneumo coccus is the same as for microbes in the other affections, viz 1 The disease-exciting germ must be proved constantly present during the presence of the disease, or at least of its earlier stages 2 It must admit of cultivation out of the body under such circumstances as to assure us of its purity 3 Re introduced into the system, it must excite in susceptible individuals the same disease phenomena 4 In the individual so made ill by the introduction of the cultures we must again find the same germs as the cause

The third question, "What conditions incident to acute lobar pneumonia tend to render the disease fatal?" was discussed by Drs W H Robb, of Amsterdam and H M Biggs, of New York The former said that statistics showed that the average mortality was one in five, and that the disease was especially fatal in the very old and the very young It was more fatal in negroes than whites, and in the female than in the male, the mortality figures in the two sexes bearing the relation of three to two in Vienna Pregnancy also increased the danger from the disease, and it was more fatal when it attached to the upper lobe of the lung than the lower Recovery was very doubtful when the whole of one lung was involved, and in double pneumonia recovery was the exception In chronic drunkards the danger was nearly doubled, and it was also great in cases with such complications as endocarditis, pericarditis, and emphyzema It was also noticeable that the disease was more fatal in some years than in others When the pulse reached 130 or 140 and remained thus rapid for any length of time, the case generally ended fatally, and an intermittent pulse indicated great danger A temperature of 105° or over was a bad sign, and muttering delirium and subsultus tendinum were usually of fatal import Dr Biggs stated that in acute pneumonia the tendency was to recovery, and when this did not occur the fatal issue to be referred to other conditions complicating it Among them were the existence, (1) of some unfavorable condition as regards habits, constitution, age, etc, (2) of some other acute or chronic disease, (3) of certain complications developed in the course of the disease, (4) of the involvement of more than one lung, and (5) of intense activity of the morbific principle Inquiring whether it was possible to trace any circumstance which was common to all the different conditions rendering the prognosis bad, he said that he believed it was, and this was heart failure He considered pneumonia as an essential fever which has its local manifestation in the lung, which is infectious in the same sense that typhoid fever is, and which is due to a specific cause

In discussing the fourth question, "Are there known remedies or therapeutic measures capable of arresting the disease, or of exerting a curative influence by either shortening its duration or conducing in any way to a favorable termination?" Dr T F Rochester, of Buffalo, advocated with much earnestness the special efficacy of carbonate of ammonia, the advantages of which he had first learned when serving in the hospital in, 1848, under Alonzo Clark and John T Metcalfe It was important that the solution should be made from the freshly prepared crystals, and that it should not be kept in the form of powder He advised that it should be used in doses of from five to ten grains every two hours, and that it should as a rule be given in milk In the old and debilitated as much as ten grains every hour might be required With the carbonate of ammonia he usually employed about five grains of Dover's powder, or an eighth of a grain of morphine, every four hours When alcohol was indicated, it was sometimes wonderful to see what it could accomplish, and a highly nutritious diet was always of service He did not believe in the use of the arterial sedatives, but digitalis and convallaria were sometimes of service in stimulating the heart's action Quinine, kairin and antipyrin were also useful, but he thought that the employment of the latter might be carried too far

The fifth question was, "Is blood-letting ever indicated in this disease, and if so, what are the circumstances indicating and contra-indicating this measure of treatment?" and it was discussed by Dr Simon T Clark, of Lockport Possessed of a strikingly handsome presence, a clear and well modulated voice, a graphic style of writing and no little elocutionary power in delivery, Dr Clark undoubtedly made the oratorical hit of the evening, being listened to with profound attention and frequently greeted with hearty applause Believing that the disease was an inflammatory affection, he said there was ground for supposing that, like any other inflammation, it might originate from a variety of causes In the course of his remarks he stated that the experience of physicians in large city hospitals should not be accepted with too much confidence by country practitioners as always applying to their own patients, and related two cases in which he was confident that he had saved life by the use of the lancet One case, in which he drew sixteen ounces of blood, was that of a robust young man whose system was overwhelmed with complete stasis at the commencement of an attack of pneumonia, and the other, in which he drew somewhat less than eight ounces, was that of an Irish woman 60 years of age, accustomed to hard manual labor, who was suffering from passive pulmonary œdema on the fifteenth day of the disease, stimulants producing no effect whatever, and death apparently being imminent These two conditions, he believed, were indications for the infrequent but judicious use of the lancet, and the result was the test of its efficacy

Drs John Shrady, of New York, and E D Ferguson, of Troy, discussed the sixth question, "Is alcohol useful in the treatment of acute lobar pneumonia, and if so, what are the indications for its use, and how is its use to be regulated as regards the quantity given, etc ?" Dr Shrady said that the faith in the efficacy of alcoholic stimulus was too deeply rooted to be disputed, but he believed that it was overrated It was supposed that the more rapid the pulse the greater the need of alcohol, and that it was especially indicated in intermittent pulse Still it was only a forlorn hope He did not believe that it had the effect of lowering the temperature In cases where it seemed to be required from four to eight ounces of spirits a day would usually prove sufficient, and he thought it was best to give it in the form of milk punch Dr Ferguson said that he was not aware that a comparison of two sets of parallel cases, in one of which alcohol was used, and in the other not, had ever been made Having referred to a number of authorities, he said that it could not be doubted that there exists a general opinion that alcohol is of service in quite a large per centage of cases of pneumonia In some cases the increased tolerance of alcohol was quite remarkable In others, its use was attended with extreme danger There was no reason to doubt that alcohol was decomposed within the human organism, and being thus a generator of force, must therefore be regarded as a food It was of special service in cases where the time required before ordinary food could be digested would lead to a fatal result, the alcohol furnishing energy without any demand upon the tonus of the body It temporarily increased the strength of the heart muscle, and he believed that it also acted as an antiseptic He had not been able to find contra-indications to the use of alcohol in moderate doses in in any cases of pneumonia, and he was at a loss to understand the feeling against it If the censure was upon the immoderate use of this agent, as well might we inveigh against the immoderate use of arsenic or opium As a rule alcohol should be given at frequent intervals, as the effect on the heart was evanescent, and he thought that from one half to one ounce of whisky, repeated every one or two hours, was required

The discussion was resumed on the second day, when Dr C G Stockton, of Erie county, read a paper on the seventh question "To what extent is it safe and useful to employ antipyretic measures of treatment in cases of acute lobar pneumonia, inclusive of the cold bath, spraying the body, or the wet sheet?" With the possible exception of cold sponging, he condemned the use of external antipyretic measures The selection of an internal antipyretic, he thought, should be made according to the indications of the case As to antipyrin, he believed that it should never be given in doses larger than 20 grains, nor at intervals of less than eight or ten hours

The eighth and last question "Do relapses of acute lobar pneumonia ever occur during or shortly after convalescence, and does this disease involve any special liability to other diseases, or sequelæ?" was discussed by Dr J G Orton, of Binghamton, who stated that he had never seen an instance of such relapse, and did not believe that they ever occur, the so called relapses being merely due to complications or the involvement of a new portion of the lung Bronchitis, pleurisy, acute nephritis and pericarditis were likely to result indirectly from pneumonia, and one attack of the latter disease predisposed to subsequent attacks Some general debate then brought this memorable discussion to a close P B P

NECROLOGY

ALONZO T KEYT, M D

Dr A T Keyt, of Cincinnati, died at his home in that city on November 9, of cardiac paralysis He was born in Higginsport, Ohio, January 10, 1827, and was therefore in the 59th year of his age While he was a boy his parents moved to Moscow, Ohio After graduating at Felicity, he went to Cincinnati as a medical student, and attended the Ohio Medical College, and, upon attaining the highest honors at that institution, was appointed resident physician at the Cincinnati Hospital with Dr M T Carey After his marriage, in 1849, he settled in Moscow, but soon returned to Cincinnati, where he built up a most enviable practice and reputation

Dr Keyt was devoted to his profession, and was an eminent writer on medical subjects, having been a valuable contributor to the *Boston Medical and Surgical Journal*, *New York Medical Journal*, *The Cincinnati Lancet and Clinic*, The Journal of the American Medical Association, and the *London Lancet* He was the inventor of the compound sphygmograph, which bears his name (Keyt's Cardio sphygmograph)—an instrument for recording at once the beating of the heart and the pulse, which received in its infancy the hearty endorsement of Marey and other leading scientists engaged in the development of graphic methods of investigation He was a patient, laborous and conscientious worker He never submitted anything to the medical press until after repeated trials he was fully convinced of the correctness of his conclusions Through his writings Dr Keyt was better known in Europe than in his own country, his contributions to scientific journals on the sphygmograph, and its use, were quoted as authority One of his last contributions to medical literature, if not his last, was a paper on "Cardiography," read at the meeting of the American Medical Association, last spring, and published in The Journal of August 8, 1885

Dr Keyt was a hard worker, and had been for the thirty-five years he had practiced medicine

The post-mortem examination, as made by Drs Dunn and Isham, showed death to have been due to overwork

MISCELLANEOUS

National Conference of State Boards of Health—In accordance with a resolution adopted at its organization, The National Conference of State Boards of Health will hold its regular annual meeting at the Willard Hotel, Washington, D C, December 8, 1885 For the convenience of the many sanitarians who may desire to attend both, the annual meetings of the Conference are held at the same time and place as those of the American Public Health Association, but its sessions are so arranged as not to conflict with the work of the latter organization With this idea in view, and at the suggestion of the President, the preliminary session of the Conference will be called to order at 9 A M, December 8

Members proposing to present papers to this meeting are requested to send early notice to the Secretary,

J N McCormack, M D

Bowling Green, Ky

Yellow Fever Inoculation —We learn that Dr Joseph Holt, of New Orleans, has received a letter from Dr J McF Gaston, of Atlanta, Ga, inclosing a communication from Dr Domingo Freire, of Rio de Janeiro, giving interesting information about inoculation for yellow fever Dr Freire stated that he had this year performed nearly 5,000 inoculations, the result of which proved an absolute success, for none of those who were inoculated died, whereas over 400 persons who were not inoculated have already succumbed to the disease The inoculated persons dwelt in the same infected quarter, and a great number inhabited the houses wherein deaths had occurred

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY, FROM NOVEMBER 14, 1885 TO NOVEMBER 20 1885

Capt F W Elbrey, Asst Surgeon, sick leave of absence further extended six months on surgeon's certificate of disability (S O 263, A G O, Nov 14, 1885)

Capt Norton Strong, Asst Surgeon, relieved from duty at Ft Union, N M, and ordered for duty as attending surgeon, Hdq'rs Dist of New Mexico, and post surgeon Ft Marcy, N M (S O 171, Dept Mo, Nov 16, 1885)

First Lieut C B Ewing, Asst Surgeon, now at Ft Leavenworth, Kansas, ordered to proceed to Ft Reno, Ind Ter, and report to commanding officer for temporary duty in the field (S O 170, Dept Mo, Nov 13, 1885)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING NOVEMBER 21, 1885

M C Drennan, Surgeon, ordered to training ship "New Hampshire"

H Aulick, Surgeon, detached from training ship "New Hampshire," and wait orders

H H Fitts, Asst Surgeon, ordered to appear before Examining Board preliminary to promotion

C W Rush, P A Surgeon, granted sick leave for three months from Nov 20, 1885

CORRIGENDA

In the Journal of October 3 p 387 second column in giving the conclusions of the paper on Natural and Ideal Cholecystotomy by A C Bernays M D of St Louis for The paper concludes with the following propositions" *et seq* read

Having now arrived at the end of the work I may be permitted to offer my own conclusions and I respectfully submit them as follows

I The causes which indicate an operative interference with the system of gall vessels are *a* jaundice *b* paroxysmal pain or a tumor in the right hypochondriac region *c* suppuration *d* peritonitis these conditions to be either severally or singly recognizable the presumable origin being biliary calculi *e* malignant disease

II Explorative laparotomy must be preferred to acupuncture or aspiration as a diagnostic measure

III The incision in the linea alba is preferable when there is much doubt regarding the seat of obstruction because the large ducts can be reached much better from this incision than from the incision parallel to the free border of the ribs

IV The escape of bile through an abdominal fistula is not injurious to the process of normal digestion The bile is an excretion and probably of no more use in the intestinal canal than the urine in the bladder

V Jaundice when caused by an obstruction of the common duct is no contraindication to natural cholecystotomy We may often save life by its early performance

VI Cholecystotomy natural and ideal and cholecystectomy are the three operations at our service cholecystenterostomy may be useful but it has not yet earned a place among approved snrgical procedures

VII Ideal cholecystotomy is indicated when the bladder is normal in structure and when the gall ducts have been cleared of obstructing calculi

VIII Natural cholycystotomy is indicated when the bladder is ulcerated or suppurating or when there are permanent obstructions beyond reach at the time of operation

IX Cholecystectomy should be limited to cases of otherwise incurable or malignant disease of the gall bladder

In my paper upon The Rational Treatment of Pulmonary Diseases by the Pneumatic Cabinet" published in the Journal of Nov 14 1885 I mention a case reported by Dr V Y Bowditch before the Suffolk District *Medical Society on Nov 11 in which bacilli had been seen to disappear* from the sputa and I *inferred* from conversations I had had with Dr B that the treatment employed had been the Pneumatic Cabinet. As soon as I learned my mistake—that the patient had never been under this treatment—I telegraphed to have the paragraph omitted but I was too late—the unfortunate sentence was already in print In justice however both to Dr Bowditch and myself I wish to make this public correction of my error—an error as Dr B kindly writes me such as anyone might easily have made

W Everett Smith M D

194 W Brookline St Boston Mass

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol V CHICAGO, DECEMBER 5, 1885 No 23

ORIGINAL ARTICLES

RECURRENT LARYNGITIS AND OBSTRUCTION OF THE NARES, OR ORDINARY CATARRH[1]

BY E FLETCHER INGALS, A M, M D,

PROFESSOR OF LARYNGOLOGY IN RUSH MEDICAL COLLEGE AND OF DISEASES OF THE THROAT AND CHEST IN THE WOMAN'S MEDICAL COLLEGE CHICAGO

By the term "recurrent laryngitis" I have designated a common form of chronic catarrhal inflammation of the larynx, which, because of its clinical history, etiology, and treatment, merits special attention This is not a distinct affection, and what I have to say of it is not entirely new, but many facts regarding it have been so generally overlooked by authors that I feel confident they will be of interest to this Society The affection is characterized by frequent recurrence of irritation of the larynx, with hacking or hemming cough, and more or less complete aphonia, interspersed with longer or shorter periods of perfect health, or of such slight impairment that the function of the larynx is perfectly performed for all ordinary use of the voice

The affection is usually associated with chronic pharyngitis, and in a large majority of cases with considerable obstruction of the nares, which I believe stands in a causative relation to both the pharyngeal and laryngeal disease It is more frequently met with along the seaboard and on the borders of our great lakes than in inland localities In the cities located on our lakes it affects more frequently those who live within a few blocks of the shore than those half a mile distant, however, no locality is entirely exempt, and frequently the affection is observed in the most unexpected quarters, where the temperature and humidity of the atmosphere are free from the sudden changes which occur near large bodies of water This fact is of importance as one of the proofs of the theory which I hold regarding the etiology of the affection

Most frequently patients are troubled during the fall and winter months, though the changeable weather of spring is quite likely to excite a subacute or chronic inflammation, which, however, may be relieved by the warm days of summer, and is therefore less persistent than similar attacks during cold weather

I have observed the affection most frequently in patients between the ages of 18 and 50 years, and am led to believe that it is not very common before or after these ages Among those who use the voice considerably in speaking or singing, the affection is more frequently observed than in others, but this may be partially due to their noticing imperfections in the vocal organ more than those who only use it for ordinary conversation Men seem more subject to the disease than women, which may be readily explained by the greater exposure in the former, and especially by the common habit of smoking, which is so obnoxious to sensitive mucous membranes

Patients suffering from recurrent laryngitis are usually found to be also affected with coryza and pharyngitis

Examination of the larynx will show the epiglottis and arytenoids moderately congested, and the vocal cords of a light pink color Sometimes the congestion is confined to the edges of the cords only, sometimes to the anterior or posterior extremities, sometimes it is uniform, and in other cases only small patches and enlarged vessels can be seen Occasionally the cords are quite red, in which case they are usually considerably thickened and partially hidden by little masses of mucus adhering to their surface In cases in which the vocal cords are only pink in color, they are seldom thickened to any considerable extent, but upon phonation their edges seem less tense than natural, and often a chink, from one to two millimetres in width, will remain between them even in sounding a high pitched "A"

Frequently we will observe, running from the vocal processes backwards and upwards upon the arytenoid cartilages, small triangular spots from three to six millimetres in width, and five to eight in altitude, in which the color is yellowish or yellowish white These spots have the appearance of superficial ulcers, but are usually only patches of atrophied mucous membrane similar to that which is often seen over the cartilaginous septum in chronic rhinitis In some cases the inter-arytenoid fold of mucous membrane has a slightly granular appearance, and is of a light color, suggestive of superficial ulceration, but true ulceration is uncommon In patients whose vitality is low ulceration may actually take place in either of these places Usually there is little, if any, thickening of other portions of the larynx than the vocal cords.

The posterior pharyngeal wall is usually studded with several enlarged follicles, as in simple chronic follicular pharyngitis, and in the great majority of cases it will be found that there is bending with thickening of the septum narium, or swelling and hypertrophy of the turbinated bodies on one or both sides

---

[1] Read before the Illinois State Medical Society on May 20, 1885

A rhinoscopic examination of the naso pharynx will reveal usually a relaxed and swollen condition of its mucous membrane, and often submucous thickening, giving rise to grayish projections from the sides of the vomer near its posterior edge This thickening is sometimes sufficient to nearly occlude the posterior part of the nasal cavity Often the posterior ends of the inferior, and sometimes of the middle turbinated bodies are so swollen as to greatly restrict the size of the choanæ

Etiology —Most patients have no well defined idea of the cause of the trouble, but experience has shown that usually either hereditary influences, changeable climate or syphilis predispose to the affection, while a great variety of conditions may excite the attack The exciting cause is sometimes found in the over-use of the voice, as in shouting, speaking or singing, particularly in damp, chilly air Sometimes an ordinary cold taken by any of the usual methods, and added to from time to time, will terminate in laryngitis, which will speedily recur upon slight exposure The use of alcoholic stimulants frequently causes the disease, and among men smoking tobacco, and apparently chewing, keeps the mucous membrane in an irritable condition, which favors inflammation, or retards recovery

Pathology —In nearly all of these cases it will be found that there is some permanent obstruction in the nares, such as a deflected or thickened septum, or swelling or hypertrophy of the turbinated bodies, which is responsible for the continuance of the disease In some, mucous polypi exist, and in others rhinoliths or foreign bodies, the effect being the same whatever the character of the obstruction

The obstruction interferes with the free passage of air through the nose, and thus with each inspiration causes rarefication of the air in the posterior nares, this causes congestion and finally inflammation of the mucous membranes, which gradually extend towards the larynx At the same time, from inability to breathe freely through the nose, the patient, particularly when asleep, breathes through the mouth, causing dryness irritation, and finally inflammation of the pharynx and larynx, which may be aggravated, or maintained, by any of the causes already mentioned

As objections to the theory that obstruction of the nares causes nearly all the cases of recurrent laryngitis, it may be claimed that when the obstruction is due to temporary swelling the inflammation should disappear at once when the swelling subsides, and that when due to permanent obstruction it would never disappear while the obstruction continued In answering the first of these objections, I may state that the laryngitis does speedily disappear, time after time, with the subsidence of the swelling, but that finally the membrane becomes so changed by frequent inflammation that it is difficult for nature to restore the healthy processes promptly, or to maintain them when restored even against slight irritation The second is answered by the statement that there is a constant variation in the permeability of the nares, even when obstructed by large mucous polypi, or a greatly distorted or thickened septum These variations, which result from disturbance of the vaso motor nerves, are due mainly to the condition of the atmosphere, the mucous membrane being swollen and the nasal cavities consequently small in damp or chilly weather, and the reverse in the opposite condition of the atmosphere Therefore, during the dryer portions of the year, the nares are frequently sufficiently patulous, notwithstanding the obstruction, to allow free nasal respiration

Clinical History —The symptoms of recurrent laryngitis are like those that mark the course of chronic laryngitis of a mild type, such as hoarseness, tickling in the throat, hacking cough, and expectoration at times of pellets of mucus, with sometimes short spasms of the larynx, due probably to the irritation of dried secretions becoming detached and lodging in the glottis

The hoarseness is not constant, though it is generally apparent if the patient attempts to sing Any of these symptoms may be absent These symptoms are present in greater or less degree with each recurring attack, and they tend to gradually increase in severity until finally they become permanent, as the disease merges into persistent chronic laryngitis

Usually, the history of such a case will extend over several years, and almost invariably the patient will state that he has been troubled with catarrh for two or more years preceding the exposure or indiscretion which excited the laryngeal inflammation And he has generally experienced several similar attacks of from two to four weeks' duration before the fear that the disease may extend to the lungs, prompts him to seek advice Usually no constitutional symptoms attend the affection, though if it passes into chronic laryngitis grave symptoms may be developed, which are due to fatigue and loss of rest caused by the cough

Diagnosis —The history of the case and the discovery of the congestion of the larynx already mentioned, with the appearance of the pharynx and nares, renders the diagnosis certain when pulmonary and cardiac disease have been excluded

Prognosis —The tendency of these cases is to grow worse for two, three, or four years, the larynx becoming more and more sensitive, so that it is affected more easily by slight causes, and the inflammation remains longer and longer with each attack, until finally what I have termed recurrent laryngitis terminates in persistent chronic inflammation which is difficult to eradicate But in some cases the patient learns so well the exciting causes of cold that, by the greatest care, he avoids many attacks, and finally recovery may take place, although the singing voice is likely to be ruined This so called recovery is particularly likely to take place when the inflammation of the larynx is due to hypertrophy of the nasal mucous membrane, a condition which tends after a few years to terminate in atrophy, when the nasal cavities again become free, and unless the structure of the laryngeal mucous membrane has been too much altered by repeated inflammation, the laryngitis will subside Unfortunately, however, even in these cases, atrophy of the nasal tissue may go on to such an extent as to destroy the proper warming function of the nasal chambers, and thus the pharyngeal, and following it the laryngeal inflammation is likely to again recur, and to remain permanent.

There is a belief among many that this affection tends to terminate in consumption, but although I am well aware that it occasionally precedes this disease, I do not think it stands in a causative relation to it. From my observation and reading I conclude that a large proportion of cases of recurrent laryngitis will, if imperfectly treated, result in chronic laryngitis, a limited number will perfectly recover, some will recover for a time, to eventually terminate in a more obstinate affection, and a small number will materially shorten life.

Treatment.—The treatment, to be effective, must be varied according to the cause of the disease. In cases in which the affection occurs in a person predisposed to inflammation of the mucous surfaces, and in which there is no obstruction in the upper air passages to account for it, we adopt the ordinary treatment recommended for chronic laryngitis, *i. e.*, local applications of astringents and stimulants, together with proper attention to any constitutional symptoms. We must make every effort to ascertain the true cause of the frequent colds from which these patients suffer, and they must be advised accordingly.

During the height of the attack, I prefer applications of the sulphate or chloride of zinc, in strength varying from gr. 2 to 30 in f℥i, according to the effect, the weaker solutions during the height of the affection, and the strong ones later on. These are made with the atomizer, if possible, but in a large number of cases, the patient cannot hold the throat in position long enough to permit of a thorough application, and then either a brush or a pledget of cotton must be employed. I prefer the latter for most cases. After the inflammation has subsided, I direct the patient to continue the use of the mild stimulating spray two or three times a day for many months, in order to toughen the membrane so that it may not be so easily affected by exposure. For this purpose I usually recommend a solution of sulphate of zinc in water, 2 or 3 grains to the ounce. This should be used for three or four weeks, and then substituted by some similar remedy, as ferric alum or chloride of zinc, for about the same time, after which the original spray may be again employed. Frequently I combine with these solutions small quantities of carbolic acid, for its sedative effect, and often I add to them the distilled extract of hamamelis, eucalyptol or Listerine. At the same time, owing to the pharyngeal trouble, troches of krameria, or Hancock's compound troches of krameria, or benzoic acid may be beneficially employed four or five times a day. By this process, eventually, nearly all these cases will be cured, if the patient is faithful in the use of his home remedies.

The vapor inhalations which were much in vogue a few years ago are not generally beneficial, except during the first few days of the attack, on the contrary, they are often hurtful by reason of the increased tendency to inflammation induced by the frequent applications of warmth and moisture. As a matter of course the patient must not use the voice when hoarse, and he must be careful in recommencing its use after a period of rest.

The condition of the digestive and secretory organs must be carefully attended to in all these cases, and the rheumatic, gouty, syphilitic, or dartrous diathesis, if present, must receive proper consideration.

In a considerable number of cases, the inflammation is caused and maintained by the use of tobacco. I have found the condition most frequently among smokers, though I believe that chewing is almost as injurious in some individuals. In such cases, tobacco must be discontinued before we can hope for a complete cure.

Mechanical Obstructions.—In most cases, obstruction in the naso-pharynx or nares will be found to exist, and then no remedies are likely to be of much service until the obstruction has been removed. Among the causes of obstruction are foreign bodies, naso-pharyngeal growths, nasal polypi, deflection of the septum with thickening, and swelling with hypertrophy of the turbinated bodies.

When hypertrophy of the palatine tonsil is sufficient to interfere with nasal respiration, the gland must be removed. This may be done with chemical escharotics, the galvano cautery, or with the curette or cutting forceps. Of these methods, the only one I can recommend is the last mentioned. The action of chemical escharotics cannot be well controlled in this locality, and they cause great pain. Removal by the galvano-cautery is painful and tedious. Removal by the curette is more difficult and is likely to be less thorough than by the forceps. The cutting forceps of Lowenberg, or some modification of it, I have found most satisfactory. Usually from three to five applications of the forceps will be necessary, and each will cause considerable pain, therefore it is best to anæsthetize the part with hydrochlorate of cocaine, or in children to produce general anæsthesia. In the latter case, the child is placed on its abdomen, with head drawn over the edge of the table, and the mouth kept open by a suitable gag. The operator sits on a low stool in front and directs his forceps with the forefinger of the left hand, taking special care not to sieze the projecting end of the Eustachian tube.

Polypoid growths springing from the vault of the pharynx, or from the choanæ, may be best removed with the galvano-cautery or steel-wire écraseur, the latter being far preferable in the majority of cases. If the tumor is not large, it may generally be most easily secured by passing the same through the nares, the rhinoscopic mirror being employed to see when the wire is in proper position.

If the tumor be large, a catheter is passed through the nares and the end of it brought out at the mouth. The ends of a wire about three feet long are then passed into the mouth through the catheter, and brought out at the nostril. The catheter is then withdrawn, the ends of the wire slipped through the tube of the écraseur, and the loop drawn back into the mouth and carried up behind the tumor, after which the wire is fastened to the instrument and the tumor is gradually cut off In carrying the loop up behind a large tumor, the operation may be greatly facilitated by using my snare applicator[1]

Mucous Polypi —Nasal polypi may be removed by various methods, the principal ones being by the forceps, the galvano cautery or steel wire écraseur I much prefer the last Whichever plan of operating is adopted, it should be done under a strong light thrown into the nares from a concave reflector

The écraseur causes much less pain than the forceps, and with it we do not remove the turbinated bodies, as frequently happens when forceps are employed After the polypi have been removed, the spots from which they have grown will sometimes need to be cauterized, preferably with the galvano-cautery or chromic acid

Deflected or Thickened Septum —When the trouble depends upon a deflected septum, with more or less thickening, the bend must be straightened and the redundant tissue removed In nearly all cases of bending of the septum there is a considerable outgrowth from its bony or cartilagenous portion which is generally found on the convex side, and in most cases the inferior turbinated body on the other side is hypertrophied The projecting portion of the septum is found with about equal frequency on the right or left side, and in about ninety per cent of the cases, is mostly located on the bony septum, though the cartilaginous septum is probably the first part involved In about ten per cent of the cases the cartilaginous portion causes the chief obstruction

The remarkable relief experienced by patients after removal of obstructing portions of the septum is one of the most satisfactory results ever witnessed by the surgeon Even when small obstructions have been removed the patients remark, "I never knew what it was to breathe before" In more pronounced cases they express themselves as "proud of their nose," and state that no one can appreciate what a "luxury it is to breathe through thé natural channel" In the treatment of these cases I can say nothing whatever in favor of the old method of puncturing the septum, which does not relieve the obstruction, but furnishes a new source of annoyance from the scabbing which occurs When there is only moderate flexure without thickening, the method adopted by Prof Moses Gunn may be followed He recommends oblique crucial incisions so as to allow the cut edges to glide over each other as the septum is forced to its former position, where it is retained by a plug until adhesions take place

This operation is not applicable where there is thickening, or where the vomer is much involved Such cases (and they constitute the greater number) require removal of the redundant tissue In removing this, I formerly dissected off the mucous membrane from below, leaving its attachment above, and then removed as much of the mass as was necessary to restore the normal size of the cavity, but the dissection was a tedious process, and I learned by experience that it was unnecessary, except when the tissue to be removed was near the nostril In other cases healing takes place almost as rapidly and quite as surely and perfectly, if no effort is made to save the mucous membrane Now I saw off the spur, mucous membrane, bone, and cartilage together, on the normal plane of the septum, so that when the piece is removed the nares will be of normal size When this has been done, if there is much bending of the septum it is straightened with forceps, and held in position by a plug or tube of gutta-percha, which may be worn constantly for a couple of weeks, and at intervals for two or three weeks longer, until the parts are fixed in a proper position Sometimes, where the flexure is great, this cut will open into the opposite nares, but usually the mucous membrane of the opposite side is not cut through However, when it is, the opening generally heals, though if it should not, it would be a matter of little consequence, provided the cut was far back on the septum

If the opening be near the nostrils it might, as already suggested, become a source of much annoyance Therefore in this position, care should be taken to save sufficient mucous membrane to cover it After this operation the nares should be kept clean and thoroughly disinfected This may be accomplished by washing with Dobell's solution or soda, and subsequently applying a powder of iodoform, but a pleasanter method and quite as effective is to have the nares sprayed two to four times a day with a solution of Listerine, ʒj or ʒij to ℥j, which is thoroughly antiseptic and has a pleasant odor The instruments used for the operation are an ordinary phalangeal saw, a small nasal saw, nasal cutting forceps, a nasal spatula, nasal scissors, and forceps for replacing the septum The gutta percha plug may be easily made from the sheets of this material which are used by dentists for making plates for false teeth The parts should be thoroughly anæsthetized by cocaine before the operation, excepting in young children, in whom general anæsthesia will be required

Hypertrophic Catarrh, or in common parlance, catarrh, is by far the most frequent cause of the form of laryngitis now under consideration It is a frequent cause of deafness, and is a source of much discomfort to many people, even when it causes no impairment of the voice or sense of hearing Until recently its treatment has been very unsatisfactory, but happily this is now changed, and we may undertake its cure with almost as much confidence as we could that of a case of intermittent fever

As the symptoms of this disease are due to swelling or hypertrophy of the mucous membrane, and sub-mucous tissues, some plan must be adopted which will prevent the one and remove the other, and I may as well premise what I am to say on this subject by the statement that nothing short of surgical interference will certainly accomplish this end, though many local remedies are of temporary value

The methods which have been recommended for preventing swelling and removing hypertrophied tissue are, cauterization by various chemicals, or the galvano-cautery, and removal by scissors, cutting forceps, or écraseur Of the various chemicals, chromic and glacial acetic acids have been found most useful, but both give considerable pain, though less than other escharotics, and neither has been found entirely satisfactory The usual experience with chemical escharotics is, that the patient is partially relieved, and concludes that what remains of the disease is less disagreeable than the remedy, therefore he discontinues treatment too soon, and after a few months the disease returns Remembering former suffering he does not return to his physician, and the latter, until he hears of the case accidentally, fondly hopes that it has been cured

---

[1] This is an instrument so constructed that as the wire loop is drawn back into the naso-pharynx it may be easily opened and carried up behind the tumor where it is held until the wires have been adjusted to the snare and drawn tight Then the applicator is readily released from the wire and withdrawn

When the swollen tissues are prominent, and mainly confined to the posterior end of the turbinated body, no method is so successful for their removal as that by the steel wire écraseur, various forms of which are now in the market When the anterior portions of these bodies are involved the écraseur, even when supplemented by a perforating needle, is a very unsatisfactory instrument In cases of the latter variety occasionally nasal scissors may be advantageously employed, or, if the bone itself is hypertrophied, nasal cutting forceps with the scissors will be needed In most cases no instrument answers the purpose so well as the galvano cautery, by which horizontal lines may be burned through the soft tissues down to the bone in two or three places with the result of effectually preventing subsequent swelling, and restoring the naris to its normal calibre, whereby free nasal respiration is reestablished Thus the disease is practically cured, though for a time mild astringents or stimulating applications may be needed to restore the normal tone of the mucous membrane After the burning, the nasal cavities should be kept clean by alkaline washes or sprays, to which about ten per cent of listerine has been added A powder composed of equal parts of boric acid and iodoform will be found an excellent application

The instrument which I employ for the cauterization is a large two celled galvanic battery, with carbon and zinc elements, and bichromate of potash solution, a universal handle and a platinum bladed electrode The parts are first anæsthetized with cocaine, so that the burn is made without pain The cocaine has no injurious effects, but care must be taken not to burn too much at once, lest severe inflammation be set up Usually a single line from behind forwards on one side is as much as it is judicious to burn at a single sitting Ordinarily the nares will be stopped for two or three days after the cauterization, and subsequently occasional touching of the part with a solution of nitrate of silver is desirable, to promote rapid cicatrization This mode of treatment, when properly carried out, will surely cure the hypertrophic catarrh, and then the resulting laryngitis will either disappear spontaneously or may be removed by treatment

The results of this treatment on the general condition of the patient are sometimes remarkable Patients, who have for years been so frail that the slightest exposure or over-work would make them sick, will sometimes begin to improve at once as the result of more perfect oxygenation of the blood, and they became hardy and robust, so that it is a frequent occurence after a few weeks for them to remark that they "have not been so well for years " While at first this result seems singular, on second thought it is found to be upon the same principle that a weak person who has for years been confined in poorly ventilated apartments will speedly become vigorous and strong when removed to the pure atmosphere of the country

In cases in which curative treatment can not be carried out, much temporary benefit may be obtained from the repeated application to the nares of cocaine One of the remarkable properties of this drug, which was pointed out seperately and almost simultaneously by Dr Bosworth, of New York, and myself, is that when applied in small quantities to the swollen turbinated bodies, it causes a contraction of the tissue within two or three minutes, which will continue for several hours This will open the nares and allow easy respiration I have employed this drug constantly during the past winter for the relief of acute colds, and in the examinations of hypertrophic catarrh with the most favorable results I employ it in the proportion of 4 per cent of cocaine to 96 per cent of powdered starch or sugar of milk, directing that it be blown into the nares at bed time, and repeated after four or five hours if needed It causes the swelling to disappear at once, checks secretions, and allows the patient to breath easily through the nose, thus preventing laryngeal complications

In conclusion I wish to call attention to the following propositions

1 Recurrent laryngitis is usually dependent upon obstruction of the nasal cavities

2 This obstruction in the majority of cases is caused either by deflection and thickening of the septum or by what is known as hypertrophic catarrh

3 To effect a permanent cure the obstruction must be removed

4 The operative procedures necessary for the removal of these obstructions may be made painless by the use of hydrochlorate of cocaine

5 This method of treatment properly carried out may be relied on to cure the catarrh and the laryngitis which it has caused

6 Great improvement in the general health often results from the removal of the nasal obstruction

7 In acute colds or exacerbations of hypertrophic catarrh, immediate relief may be obtained by the insufflation often as needed of small quanties of cocaine

64 State St , Chicago

ANTIPYRIN, ITS HISTORY, PHYSIOLOGICAL ACTION, AND THERAPEUTIC EFFECTS[1]

BY SAMUEL S ADAMS, A M , M D ,

OF WASHINGTON, D C

As the question, "What is Antipyrin?" was asked in this Society one week ago, and not answered satisfactorily, the writer will endeavor, in as brief a manner as practicable, to answer it For a year past the medical journals in this and foreign countries have been discussing the subject, and yet there seems to be a majority of the members of this Society who have acquired no knowledge of the drug

---

[1] Read before the Medical Society of the District of Columbia, October 21 1885

Whenever a new remedy is introduced to the medical profession it meets with many curious experiences Some promptly adopt and try any new drug that may be placed upon the market, especially if the price is high, and use it like a hobby until both their patients and themselves become convinced of its inutility Others, not content with simply ignoring its existence, actually condemn those of their brethren who are bold enough to test its efficacy as a remedial agent A large majority of the profession, however, accept for trial new remedies upon the recommendation of those skilled in physiological and therapeutical research The last class would seem to be the wisest, on account of its willingness to experiment upon such a sound basis If we did not accept the statements of the men we characterize as authorities, how long would it be before we reached the level of empiricism? If these authorities tell us that a certain newly discovered combination of elements has proven, in their hands, a more valuable remedial agent than any hitherto known, then it would seem to be our duty, as scientific humanitarians, to give that discovery a fair and impartial trial, and base our conclusions of its worth upon unbiased therapeutical evidence If we had not accepted the statements of authorities where would cocaine have been to day? Would it not have been consigned to the oblivion some have chosen for antipyrin? It seems to me the plain duty of the profession to try all remedies of recent introduction when they are endorsed by the recommendations and experiments of men who have devoted means, time and labor to discover and demonstrate their chemical, physiological and therapeutic properties

Filehne, who had made previous experiments with kairin, was induced, at the suggestion of several chemists, to experiment upon the physiological and therapeutical properties of dimethyl oxychinoline, an alkaloid discovered synthetically by Ludwig Knorr, assistant in the Chemical Institute at Erlangen Filehne's results were such as to induce him to request his friends in charge of various public hospitals in Germany, to make extensive trials with this drug in the reduction of temperature in various febrile and inflammatory diseases It was also extensively used by Guttmann The results obtained established beyond a doubt that the new drug was a safe and valuable antipyretic of limited powers The deceptive but enticing name "Antipyrin" was given to Knorr's preparation by Filehne With the endorsement of such men as Filehne, Guttmann, Huchard, Coppola and Migazzini, the drug came to America, where the experiments of Draper, Butler, and others, confirmed the statements of its antipyretic value Certainly these facts and endorsements are sufficient to warrant others in further physiological and therapeutical observations with it

We have no reason to doubt the honesty or integrity of Filehne and the various German writers who have endorsed this drug as a legitimate therapeutic preparation When we remember that the discoverer is a scientific chemist, we certainly should not wish to deprive him of any emolument he may derive from its manufacture or sale The reward sought to be obtained from a monopoly may be properly condemned in a physician, but should this rule extend so as to include all persons engaged in business pursuits? A parallel case, and one which possesses a slight shade of quackery, is that of Tanret, the discoverer of pelletierine, whose preparation is recognized by the dispensatories and sold at an exorbitant price by its sole manufacturer Knorr, in taking out his patent, did not seek to place a secret nostrum on the market, but thereby simply secured to himself the right to manufacture a drug discovered by him His formula and mode of preparation are not only open to public inspection but they have, I believe, been published to the world in several languages The following is a copy of the patent granted him by the U S Patent Office

UNITED STATES PATENT OFFICE

Ludwig Knorr, of Erlangen, Assignor to Farbwerke, Vormals Meister, Lucius & Bruning, of Hochst-on-the-Main, Germany

PREPARATION OF DIMETHYL PHENYL OXYPYRAZOL

Specification forming part of Letters Patent No 307,399, dated October 28, 1884.

Application filed March 5 1884 (Specimens) Patented in Germany July 22 1883 No 26 429

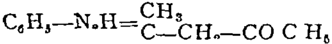
To all whom it may concern

Be it known that I, LUDWIG KNORR, a citizen of the Empire of Germany, and a resident of Erlangen, in the Empire of Germany, have invented certain new and useful Improvements in the Preparation of Dimethyl phenyl oxypyrazol, and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same

My invention consists of a new product, dimethyl phenyl oxypyrazol, from phenyl hydrazine, the latter yielding, as products of a series of observations, new compounds, which I have found to be valuable medicaments

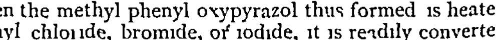
The following is a description of my method of proceeding

By mixing the body well known as acetylacetic ether with a molecular quantity of phenyl hydrazine, water is eliminated, and a condensation product is formed, termed "phenyl dydrazine acetylacetic ether," of the formula



$$C_6H_5\text{—}N.H=\overset{CH_3}{C}\text{—}CH_2\text{—}CO\,C\,H_5$$

When this product is heated to a temperature of 100° to 150° Centigrade, until a sample perfectly solidifies on cooling or on immersion into ether, a mass will result which, after crystallization from water or from some other medium, represents pure methyl phenyl oxypyrazol *Its formation from phenyl hydrazine acetylacetic ether takes place under production of alcohol,* as expressed in the equation



$$C_6H_5N\,HC<\begin{matrix}CH_3\\CH\,CO_2D\,H\end{matrix}=C_{10}H_{10}N\,O+C\,H_5OH$$

When the methyl phenyl oxypyrazol thus formed is heated with methyl chloride, bromide, or iodide, it is readily converted into dimethyl phenyl oxypyrazol

Dimethyl phenyl oxypyrazol is distinguished by the following properties It crystallizes from ether in lamellæ of a pearly luster, melting at 113° centigrade It is soluble in alcohol, water, and acids, from which solutions it is precipitated by concentrated alkalies Its aqueous solution turns red on addition of ferric chloride, and green when a nitrite is added When a concentrated aqueous solution is mixed with the solution of a *nitrite, green crystals separate on standing*

What I claim as new, and desire to secure by Letters Patent, is—

The new product dimethyl phenyl oxypyrazol the result of the process herein described, the same being distinguished by the properties herein mentioned

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses

LUDWIG KNORR

Witnesses A S HOGUE, J GRUND

Filehne's observations show that the effect of the drug is gradual and persistent for from five to eighteen hours, the descending curve being also gradual, that in a large majority of cases there were no bad effects, though occasionally there was vomiting, that 75 to 90 grains should be given to adults in hourly doses of 30 grains, that the dose for children should be proportionate to age, that the dose to phthisical and thin people should be small, that the greatest fall of temperature observed by him was to 38 Cent (100 4° F), that the fall begins one and one half to two hours after the first dose, that the decline is usually without sweating, that the rise, after reduction, is not accompanied by chill, that the pulse rate falls with the temperature, that albumin was not in the urine, and that its color was not changed

Guttmann observed that if there was great reduction of temperature there might be sweating, that vomiting was occasional that the temperature fell gradually and continuously, that the maximum fall was in five hours, that the duration of action was from five to eighteen hours, that reduction resulted from a single dose of four grammes, or one gramme doses repeated every hour until five had been taken, that half a gramme or less every hour had no effect, and that the pulse fell with the temperature

Coppola has given the formula of antipyrin as $C_{11}H_{1}N_{2}O$ He says that in frogs the reflex action is due to the action of the drug on the spinal cord, that in larger doses its action is transmitted to the brain, and it produces tetanic spasms which differ from the convulsions of strychnia poisoning either in their mode or their origin, that the frog may remain in this condition twenty four hours, when the spasms cease, that hyperæsthesia lasts for several days, that in lethal doses the nervous system, preliminarily excited, produces death by paralysis, that if a large poisonous dose be given the frog falls paralyzed without any preliminary excitation, that the respiratory movements do not intermit until the advanced stage of poisoning, that in a short time they resume their action even though the frog becomes tetanized, that the heart still beats with considerable vigor after the frog is paralyzed, that the effects are similar in warm blooded animals, that death is produced by paralysis of the respiration, and the heart stops in systole, that it has no action upon motor nerves and striated muscles, that dilatation of the pupil is due to stimulation of the sympathetic, that as an antiseptic it has one thirtieth of the strength of salicylic acid, and one-fifteenth of quinine, that it excites the intracardiac ganglia and also the vaso dilators, and that it increases arterial tension

Hénocque observed that it had considerable hæmostatic power, and that when applied locally its effect was greater than that of perchloride of iron

Alexander says it is produced by the action of acetic ether on aniline A full account of its chemical composition can be found in the report of the German Chemical Society, 1884, xvii, 549

At my request, Dr Louis Kolipinski has made some physiological experiments with the drug, at the Children's Hospital in this city In justice to him it must be said that the conclusions derived from his experiments were drawn before he had examined the German and French literature on this subject

EXPERIMENTS WITH NON-FATAL DOSES OF ANTIPYRIN

In order to determine the physiological effects of antipyrin on animals, in large but not fatal doses, and also to note the variations which may result from quantity of drug and length of time in administration, a healthy male puppy two months old and weighing eighteen pounds, was selected He received by rectal injection 10 grains for three successive hours beginning at 11 A M, and 20 grains for the same periods of time immediately following Thus 90 grains were given by four in the afternoon The temperature was taken by keeping the thermometer bulb for five minutes in the groin The animal was kept confined and was offered food

The pulse, respiration and temperature recorded just before beginning the injections of the drug were 136, 52, 101 3° F The temperature had declined 0 5° F at 1 P M, but stood again at 101 7° F at 2 P M, and 101 5° F at 3 At 2 30 he vomited partly digested food, and at 4 P M there was a full flow of saliva He became very quiet, so that it was not necessary to secure him in making records of body heat, etc His temperature had sunk 0 6° F, the pulse was diminished and the breathing quickened with wheezing expirations He staggered in walking, but was perfectly conscious and intelligent The pupils were moderately dilated and responded to the irritation of light The saliva dripped from the mouth and tenaceous, frothy mucus was repeatedly vomited

At 4 30 P M these symptoms continued The conjunctivæ were very pale, and the gums bluish-white The ventricular action had steadily increased in force At this time the respiration and pulse were both diminished, and the temperature had fallen 0 7° F Saliva and gastric mucus repeatedly tested gave no reaction with ferric chloride

At 5 P M the pulse was the same, the respiration diminished, and the temperature 2 3° F below its primary figure The heart contractions were still powerful Traces of antipyrin were detected in the urine by the iron salt The intensity of the red color given by this reagent gradually increased

At 6 30 the breathing was slow, the pulse increased and the temperature had lost 2 7° F There was moderate hyperæsthesia and a few clonic spasms of the neck and forelegs The dog sought the darkest corner in the room, and would start up and trot about, which act was followed by emesis of a sudden and violent nature Ventricular action remained very strong

At 9 30 P M the gums were of a deep blood-red color, much more intense than their usual pinkish hue The temperature had risen to 100 7° F, pulse the same as at 6 P M, and the respiration at its lowest, 24

At 11 P M perfectly recovered Temperature 102° F, respiration 28, pulse 168

The following is the record with the falls of temperature, heart's action, and breathing

	Temp	Pulse	Resp
11 A M	101 3° F	136	52
12 M	101 4	112	50
1 P M	100 8	120	44
2 "	101 7	80	64
3 "	101 5	88	60
4 "	100 7	120	60
4 30 "	100 5	120	44
5 "	99	120	52
6 30 "	98 6	160	36
9 30 "	100 7	160	24
10 45 "	102	168	28
9 30 A M	101 7	240	48

It is noticeable that the respiratory fall was the last to disappear, and that the pulse, which in the evening had an average of 160, had its minimum of 80 at 2 P M At 9 30 the next morning respiration and temperature were as usual, but the heart had increased to 240 with decided diminution of ventricular force The animal continued playful and with good appetite throughout the day

7 30 P M —Temperature 102 5° F The room in which the experiments were concluded was close and warm (82° F) The heart's action was so rapid and the respiration so panting that the former could not be counted accurately He was given, by rectal injection, 60 grains of the alkaloid At 8 25 full and copious vomiting

8 30 P M —Dose was repeated The heart and respiration now were 160 and 120, the temperature 102 5° F

8 45 —Vomited last of digesting food Antipyrin in the urine

9 20 —Pupils dilated and animal much enfeebled Temperature 102 2° F , respiration 240, heart's action weak There was very marked hyperæsthesia of surface and tonic spasms of limbs on one and on both sides 30 grains were introduced at 9 35 He was still able to run about and mucus vomiting persisted The gums were not so pale as yesterday Pupils mydriatic

9 40 —Killed with chloroform The only noteworthy appearances were spleen unusually dark, stomach actively congested, kidneys pale and normal The bladder held urine rich in urates and antipyrin, and giving no reaction for albumen The right ventricle appeared large and soft as if from overdistension which had existed some short time

The conclusions submitted are

1 In the dog large clinical doses diminish the heart's action with increased ventricular energy

2 A fall in the normal temperature of 2 5° F , which does not result in two hours, although the quantity of antipyrin be $1\frac{2}{3}$ as much

3 Vomiting, hyperæsthesia and tonic and clonic spasms are produced

4 Vomiting is not due to local action on the stomach, and can be caused by a single dose of 60 grains without decline of temperature

5 Antipyrine is eliminated by the urine, and not with the saliva or gastric mucus

6 There is a secondary weakening of the heart

7 There is dilatation of the pupil, probably due to stimulation of the cervical sympathetic

8 There is a secondary enlargement of the calibre of the blood-vessels

9 The fall in the heart beats and increased ventricular energy precede the greatest fall of temperature and respiration

10 The greatest fall in respiration follows that of temperature

May[1] reports the following case of collapse Male, 25, had croupous pneumonia of the left inferior lobe On the third day of the disease the patient was pale and delicate, pulse hardly rhythmic, great prostration Antipyrin was used as follows

At 7 P M T 39 8° (103 6° F), P 108, 2 grammes
At 8 P M T 39 3° (102 7° F), 2 grammes
At 9 P M T 38 3° (100 9° F), 1 gramme

Only slight sweating At 5 A M T 53 6° (96 1° F), collapse, frequent, minimal pulse, extremities cool, and face prominent Recovery from collapse at 1 P M

Barrs[2] reports the case of Blose Female, 35, miscarried at fifth month, confined to bed until about sixth six weeks after entered hospital Now had diarrhœa abdominal pain vomiting, headache and shiverings Became progressively weaker, heart and pulse sounds were normal, turned in bed with difficulty

3 P M , P 132, R 36, T 103° F Antipyrine, 35 grains

6 P M , P 108, T 98 4° F Antipyrin, 18 grains

11 P M , P 132, rectal temp , 98 4° F

Next day —Patient restless during the night, diarrhœa and vomiting, P 120, T 98° F , greatly collapsed 5 P M —No reaction, death at 11 P M , during last half hour T 100 6° F

Sectio Cadaveris —Brain and membranes congested, heart somewhat softened, lungs normal, spleen greatly congested, weight three pounds, softened, and contained a large infarction, kidneys enlarged, two to three conical infarctions

In this case I do not believe death was caused by the antipyrin, but by the diarrhœa and vomiting, which had almost completely exhausted her when the drug was given

My own deductions from experiment, observation and the experience of others regarding this drug, are that antipyrin is not an anti periodic, but simply an antipyretic, that it reduces high temperature, that it may be given in all diseases accompanied by high temperature without regard to their pathological conditions, that it reduces the temperature without apparently affecting the pathological process which increases the body heat, that under its administration, in graduated doses, the temperature falls, but reaches its maximum again in a few hours, that its effects are transitory, that it is rapidly eliminated, that it reduces the pulse and respiration, that its depressing effects need careful watching to preveet collapse, that in case of threatening collapse free stimulation is necessary, that cerebral symptoms improve, that it reduced high temperatures, slowed the pulse, and increased its tension, that it markedly lessened the respiratory movements, that it restored the consciousness from delirium, and that it produced free sweating, that its administration was not accompanied by any alarming symptoms, that there was no vomiting, that its effects did not last longer than six hours, that there was no lowering of the daily maximum temperature, and that there was no appreciable effect upon the course of the disease proper.

---

[1] Deutsche med Wochenschr Berl 1884 X 389
Lancet 1885 I 382

To Dr. Kohpinski and the courteous gentlemen of the library of the Surgeon General's Office, U. S. A., I return my sincere thanks for their valuable assistance in making a complete examination of the bibliography of this subject.

ON THE IDENTITY OF YELLOW FEVER AND ACUTE MALARIA—CONSEQUENT CONTAGIOUSNESS OF MALARIA AND CURABILITY OF YELLOW FEVER[1]

BY VIEIRA DE MELLO, M.D.,

MEMBER OF THE ACADEMY OF MEDICINE OF RIO DE JANEIRO

I

Considering that pathologists and physicians of all countries are of one accord in admitting that "the epidemics of yellow fever are *always* preceded by serious cases of acute malaria," yellow fever must needs then, in my opinion, express the state of *saturation* of the atmosphere by the swamp microbe, thus permitting to man a greater absorption in due time, of the morbific principle, hence the very serious character of the symptoms presented;

Considering that the two morbid entities co-exist in the same zone and increase in direct ratio of the development of the malarious germ,—a fact largely observed at Rio de Janeiro, where yellow fever is a contemporary and a companion of the excavations, breaking out at the same time that these are effected, and following them in their way through the city;

Considering, besides, that yellow fever has no distinct characteristics of its own,—the symptoms that are ascribed to it being *strictly* the same that I have observed in serious cases of acute malaria, hæmorrhage and black vomit *included*;

Considering likewise,—and this argument is of surpassing value,—that, morphologically, the *element* considered as the generator of yellow fever, as drawn by Dr. Domingos Freire, is strictly the same that I have met with in the blood, vomit and urine of *patients suffering from acute and chronic malaria*, this last period of malaria serving exactly to avoid the objections of those who may ascribe to yellow fever a case of acute malaria,—a thing that cannot be even thought of in a chronic case;

Considering, moreover, that this very same element has been *found by me* in the water that is used for drinking by the inhabitants of places where malaria reigns endemically,—places where yellow fever is not even spoken of,—an argument that at once enlightens the etiology of malaria, and overthrows the objections of those who ascribe to pigmental alterations of the hæmatin the elements described by Laveran and confirmed by me;

Considering, finally, that all the cases of malaria that could have been, and those that were classified as yellow fever, and were attended by me, yielded to the specific treatment of acute malaria,—unsuccess in those in which this treatment was employed being due, in my opinion, to insufficient doses, bad quality of the medicine used, or tardy interference, when the organism is no longer in a state to absorb it,—or because the disease is several days old, or, lastly, because the attack has been so violent as to cause the same profound disorders that in milder cases would take time to make their appearance;

I have come to the conclusion that *yellow fever is a graver modality of acute malaria*, its superlative gravity, that, therefore, *it is not an idiopathic morbid entity*, as has been asserted until now, but the expression of gravity in another morbid state, and that the denomination of yellow fever should be substituted by the one of *grave malaria*, this qualification serving to designate the highest intensity of malaria.

II

Amongst the objections that can be made to these doctrines, objections that have already been presented to me, the one that seems most weighty is the following: "Yellow fever cannot be of the same nature as malaria, since the first is contagious and the second not."

This is a great mistake. In the first place, no one, to my knowledge, has been able to demonstrate the contagiousness of yellow fever, that is, the *transmissibility* of the disease from body to body, by *contact*. In the second place, because malaria is susceptible of being transmitted by any individual to persons surrounding him, as well as of being transported to great distances. For example: An individual is possessed by the helococcus (ἑλος, swamp, marsh, and *κοκκος*, in Latin *coccus*, *coccum*, a germ, a seed, a small round body. This denomination, created by myself to designate the microbe of malaria, is based on the rules established by Egger for the construction of neologisms). He retires to his room, where he remains for several days without appropriate medication. The helococcus not being now attacked, and finding in the organism of the patient a favorable field for its development, proceeds on its evolutionary march. The patient, whose emunctory apparatus works, discharges continually from his body a certain quantity of these microbes that are thrown into the surrounding air, where, if they meet with favorable conditions, they live, develop and procreate. Therefore, after a certain time, the rooms of this individual will be transformed into a genuine focus or nursery of helococci, and, consequently, whoever enters there may receive the same morbific element that is found in a marsh or swamp.

And here we have the explanation of the *contagiousness* of "yellow fever," which is at the same time the explanation of the *contagiousness of malaria*, a question that has been despised, why I cannot tell, since it is a known fact, as no one dares to deny, that malaria is a microbiotic disease. Thus, a person who has been infected in a marsh, may, in turn, constitute another *marsh*, focus or nursery, as long as his

---

[1] Communicated to the Académie de Sciences of Paris, 1885.

	Temp.	Pulse	Resp.
11 A.M.	101.3° F.	136	52
12 M.	101.4	112	50
1 P.M.	100.8	120	44
2 "	101.7	80	64
3 "	101.5	88	60
4 "	100.7	120	60
4.30 "	100.5	120	44
5 "	99	120	52
6.30 "	98.6	160	36
9.30 "	100.7	160	24
10.45 "	102	168	28
9.30 A.M.	101.7	240	48

It is noticeable that the respiratory fall was the last to disappear, and that the pulse, which in the evening had an average of 160, had its minimum of 80 at 2 P.M. At 9.30 the next morning respiration and temperature were as usual, but the heart had increased to 240 with decided diminution of ventricular force. The animal continued playful and with good appetite throughout the day.

7.30 P.M.—Temperature 102.5° F. The room in which the experiments were concluded was close and warm (82° F.). The heart's action was so rapid and the respiration so panting that the former could not be counted accurately. He was given, by rectal injection, 60 grains of the alkaloid. At 8.25 full and copious vomiting.

8.30 P.M.—Dose was repeated. The heart and respiration now were 160 and 120, the temperature 102.5° F.

8.45.—Vomited last of digesting food. Antipyrin in the urine.

9.20.—Pupils dilated and animal much enfeebled. Temperature 102.2° F., respiration 240, heart's action weak. There was very marked hyperæsthesia of surface and tonic spasms of limbs on one and on both sides. 30 grains were introduced at 9.35. He was still able to run about and mucus vomiting persisted. The gums were not so pale as yesterday. Pupils mydriatic.

9.40.—Killed with chloroform. The only noteworthy appearances were spleen unusually dark, stomach actively congested, kidneys pale and normal. The bladder held urine rich in urates and antipyrin, and giving no reaction for albumen. The right ventricle appeared large and soft as if from overdistension which had existed some short time.

The conclusions submitted are:

1. In the dog large clinical doses diminish the heart's action with increased ventricular energy.

2. A fall in the normal temperature of 2.5° F., which does not result in two hours, although the quantity of antipyrin be 1⅔ as much.

3. Vomiting, hyperæsthesia and tonic and clonic spasms are produced.

4. Vomiting is not due to local action on the stomach, and can be caused by a single dose of 60 grains without decline of temperature.

5. Antipyrine is eliminated by the urine, and not with the saliva or gastric mucus.

6. There is a secondary weakening of the heart.

7. There is dilatation of the pupil, probably due to stimulation of the cervical sympathetic.

8. There is a secondary enlargement of the calibre of the blood-vessels.

9. The fall in the heart beats and increased ventricular energy precede the greatest fall of temperature and respiration.

10. The greatest fall in respiration follows that of temperature.

May[1] reports the following case of collapse. Male, 25, had croupous pneumonia of the left inferior lobe. On the third day of the disease the patient was pale and delicate, pulse hardly rhythmic, great prostration. Antipyrin was used as follows:

At 7 P.M. T. 39.8° (103.6° F.), P. 108, 2 grammes.
At 8 P.M. T. 39.3° (102.7° F.), 2 grammes.
At 9 P.M. T. 38.3° (100.9° F.), 1 gramme.

Only slight sweating. At 5 A.M. T. 35.6° (96.1° F.), collapse, frequent, minimal pulse, extremities cool, and face prominent. Recovery from collapse at 1 P.M.

Barrs[2] reports the case of Blose. Female, 35, miscarried at fifth month, confined to bed until about sixth six weeks after entered hospital. Now had diarrhœa, abdominal pain, vomiting, headache and shiverings. Became progressively weaker, heart and pulse sounds were normal, turned in bed with difficulty.

3 P.M., P. 132, R. 36, T. 103° F. Antipyrine, 35 grains.

6 A.M., P. 108, T. 98.4° F. Antipyrin, 18 grains.
11 P.M., P. 132, rectal temp., 98.4° F.

Next day.—Patient restless during the night, diarrhœa and vomiting, P. 120, T. 98° F., greatly collapsed. 5 P.M.—No reaction, death at 11 P.M., during last half hour T. 100.6° F.

Sectio Cadaveris.—Brain and membranes congested, heart somewhat softened, lungs normal, spleen greatly congested, weight three pounds, softened, and contained a large infarction, kidneys enlarged, two to three conical infarctions.

In this case I do not believe death was caused by the antipyrin, but by the diarrhœa and vomiting, which had almost completely exhausted her when the drug was given.

My own deductions from experiment, observation and the experience of others regarding this drug, are that antipyrin is not an anti periodic, but simply an antipyretic, that it reduces high temperature, that it may be given in all diseases accompanied by high temperature without regard to their pathological conditions, that it reduces the temperature without apparently affecting the pathological process which increases the body heat, that under its administration, in graduated doses, the temperature falls, but reaches its maximum again in a few hours, that its effects are transitory, that it is rapidly eliminated, that it reduces the pulse and respiration, that its depressing effects need careful watching to preveet collapse, that in case of threatening collapse free stimulation is necessary, that cerebral symptoms improve, that it reduced high temperatures, slowed the pulse, and increased its tension, that it markedly lessened the respiratory movements, that it restored the consciousness from delirium, and that it produced free sweating, that its administration was not accompanied by any alarming symptoms, that there was no vomiting, that its effects did not last longer than six hours, that there was no lowering of the daily maximum temperature, and that there was no appreciable effect upon the course of the disease proper

---

[1] Deutsche med. Wochenschr., Berl., 1884, X, 389.
[2] Lancet, 1885, I, 382.

To Dr Kolipinski and the courteous gentlemen of the library of the Surgeon General's Office, U S A, I return my sincere thanks for their valuable assistance in making a complete examination of the bibliography of this subject

ON THE IDENTITY OF YELLOW FEVER AND ACUTE MALARIA—CONSEQUENT CONTAGIOUSNESS OF MALARIA AND CURABILITY OF YELLOW FEVER[1]

BY VIEIRA DE MELLO, M D,

MEMBER OF THE ACADEMY OF MEDICINE OF RIO DE JANEIRO

I

Considering that pathologists and physicians of all countries are of one accord in admitting that "the epidemics of yellow fever are *always* preceded by serious cases of acute malaria," yellow fever must needs then, in my opinion express the state of *saturation* of the atmosphere by the swamp microbe, thus permitting to man a greater absorption in due time, of the morbific principle, hence the very serious character of the symptoms presented,

Considering that the two morbid entities co exist in the same zone and increase in direct ratio of the development of the malarious germ,—a fact largely observed at Rio de Janeiro, where yellow fever is a contemporary and a companion of the excavations, breaking out at the same time that these are effected and following them in their way through the city,

Considering, besides, that yellow fever has no distinct characteristics of its own,—the symptoms that are ascribed to it being *strictly* the same that I have observed in serious cases of acute malaria, hæmorrhage and black vomit *included*,

Considering likewise,—and this argument is of surpassing value,—that, morphologically, the *element* considered as the generator of yellow fever, as drawn by Dr Domingos Freire, is strictly the same that I have met with in the blood, vomit and urine of *patients suffering from acute and chronic malaria*, this last period of malaria serving exactly to avoid the objections of those who may ascribe to yellow fever a case of acute malaria,—a thing that cannot be even thought of in a chronic case,

Considering, moreover, that this very same element has been *found by me* in the water that is used for drinking by the inhabitants of places where malaria reigns endemically,—places where yellow fever is not even spoken of,—an argument that at once enlightens the etiology of malaria, and overthrows the objections of those who ascribe to pigmental alterations of the hæmatin the elements described by Laveran and confirmed by me,

Considering, finally, that all the cases of malaria that could have been, and those that were classified as yellow fever, and were attended by me, yielded to the specific treatment of acute malaria,—unsuccess in those in which this treatment was employed being due, in my opinion, to insufficient doses, bad quality of the medicine used, or tardy interference, when the organism is no longer in a state to absorb it,—or because the disease is several days old, or, lastly, because the attack has been so violent as to cause the same profound disorders that in milder cases would take time to make their appearance,

I have come to the conclusion that *yellow fever is a grave modality of acute malaria*, its superlative gravity, that, therefore, *it is not an idiopathic morbid entity*, as has been asserted until now, but the expression of gravity in another morbid state, and that the denomination of yellow fever should be substituted by the one of *grave malaria*, this qualification serving to designate the highest intensity of malaria

II

Amongst the objections that can be made to these doctrines, objections that have already been presented to me, the one that seems most weighty is the following "Yellow fever cannot be of the same nature as malaria, since the first is contagious and the second not"

This is a great mistake In the first place, no one, to my knowledge, has been able to demonstrate the contagiousness of yellow fever, that is, the *transmissibility* of the disease from body to body, by *contact* In the second place, because malaria is susceptible of being transmitted by any individual to persons surrounding him, as well as of being transported to great distances For example An individual is possessed by the helococcus (ελος, swamp, marsh, and *κοκκος*, in Latin *coccus*, *coccum*, a germ, a seed, a small round body This denomination, created by myself to designate the microbe of malaria, is based on the rules established by Egger for the construction of neologisms) He retires to his room, where he remains for several days without appropriate medication The helococcus not being now attacked, and finding in the organism of the patient a favorable field for its development, proceeds on its evolutionary march The patient, whose emunctory apparatus works, discharges continually from his body a certain quantity of these microbes that are thrown into the surrounding air, where, if they meet with favorable conditions, they live, develop and procreate Therefore, after a certain time, the rooms of this individual will be transformed into a genuine focus or nursery of helococci, and, consequently, whoever enters there may receive the same morbific element that is found in a marsh or swamp

And here we have the explanation of the *contagiousness* of "yellow fever," which is at the same time the explanation of the *contagiousness of malaria*, a question that has been despised, why I cannot tell, since it is a known fact, as no one dares to deny, that malaria is a microbiotic disease Thus, a person who has been infected in a marsh, may, in turn, constitute another *marsh*, focus or nursery, as long as his organism affords to the helococcus the necessary conditions for its development and procreation

---

[1] Communicated to the Académie de Sciences of Paris 1885

And if such a case is likely to happen in reference to one single individual, it is much more likely to happen in places where the accumulation of patients is considerable, especially if the *enteric form* of malaria *prevails, if hygienic rules are neglected, or if* the fæcal matters are retained or thrown in the vicinity of these places

Here is another example A ship watering in a place infected by malaria, and carrying to its interior the helococcus, may, *ipso facto*, become a focus of malaria, and of the gravest kind, as its population not only breathes the air impregnated with the deleterious principle, but uses for drinking purposes the liquid drained from the very sources whence it emanates Thence the greater gravity of cases of malaria occurring aboard ships,—cases diagnosticated as yellow fever,—a fact that has led certain physicians to admit, in opposition to all laws of pathology, a "ship yellow fever" and a "land yellow fever," the first being always of a much more serious character than the second

Thus, malaria, though not a contagious disease in the strict sense of the word, is susceptible of being transported to great distances, and transmitted by man, under the condition that the helococcus in the vessel in which it is conveyed meets with the necessary conditions of life, development and procreation

IS TYPHOID FEVER EVER OF SPONTANEOUS ORIGIN?

BY J F JENKINS, M D,

OF TECUMSEH MICH

Whether typhoid fever is or is not of spontaneous origin remains an unsettled question Murchison taught that it is of spontaneous origin Many German writers are of the opposite opinion In country practice we not unfrequently see cases like the following, with a distinct clinical history of typhoid fever

H P, family consisting of wife and four children, living in a rural district, where families are separated by distances of a quarter or half a mile The eldest child, a girl aged 11 years, was attacked with typhoid fever on October 10th, 1884, and was attended throughout her illness by Dr North, of this place The disease assumed a malignant form, and the patient died on the ninth day after taking her bed Three weeks after her death the mother, aged 35, and a son, aged 7 years, were attacked with fever During the first week of their illness they were under the care of a homœopathic physician, but the family becoming dissatisfied, the writer was called to attend them

Both were typical cases of typhoid fever The mother died on the twenty eighth day, the boy made a slow recovery The father, aged 35 years, and a son, aged 9 years, were taken down with the disease Each was attended by a different physician, and both physicians diagnosticated typhoid fever and treated them accordingly

Both father and son recovered There were no cases of typhoid fever within a radius of five miles of this family, but the surroundings were bad The water supply of the family was doubtless contaminated by human excreta This appears to be the only reasonable cause which produced the attack of typhoid fever in this family

There were no other cases in the neighborhood Neither the nurses who cared for them during their illness nor the neighbors who attended at their burial were taken with the disease

Similar examples have come under the writer's observation, where a family living almost completely isolated were taken with fever, whose clinical history proved beyond a doubt the nature of the disease, which in a large proportion of cases is readily diagnosticated from the so called typho-malarial fever The isolated cases so frequently met in country practice are strong proof that typhoid fever originates spontaneously, and that all that is required to produce it is the decomposition of fæcal and other organic matter, which usually contaminates the well from which drinking water is obtained

Tecumseh, November 10, 1885

MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS

THE ANTITHERMIC PROPERTIES OF THALLIN — PROFESSOR JACCOUD read a paper on this subject at the meeting of the Académie de Medecine, on October 27 His experiments were begun in February, 1885 Of the chemical history of this drug, it is only necessary to say that it belongs to the series of bases of chinoline, that its formula is $C_{10}H_{13}NO$, that its scientific name is tetrahydro parachinanisol, and that Skraup gave it the name thallin on account of its characteristic action in aqueous solutions of thallium The sulphate and tartrate of thallin occur in the form of crystalline white powders The sulphate is soluble in five times its weight of cold water, the tartrate is a little less soluble The urine of persons who have taken thallin has a brown tint, with a more or less pronounced greenish reflection The addition of a few drops of perchloride of iron produces a red color, but there is nothing special in this reaction But if the urine to which the perchloride has been added be treated with chloroform or ether, a characteristic green color is produced

Jaccoud has used thallin in seventeen adult cases, including six cases of typhoid fever, seven cases of pulmonary tuberculosis with pseudo continued fever, three cases of pneumonia, and one case of facial erysipelas The sulphate and tartrate were used indifferently, and the effects are so similar that it is useless to try to make any distinction in a general study

The minimum quantity given in a day was 10 centig, the maximum daily dose 1 gramme In the larger number of cases he gave from 40–50 centig The mode of administration was always the same the drug was given in unleavened bread, and whenever the daily dose was greater than 15 centig, it was divided into two or more equal parts, as desirable. The greatest quantity taken at any one time was 25 centig. These doses were given every half-hour in some cases, but ordinarly every hour. None of the drug was given at any time without a previous thermometric observation. The drug was always commenced at 12 noon, the temperature being taken at that time, and afterwards every hour until 6 P. M. The temperature was always taken in the axilla, and with the same thermometer for all patients.

Effect on the temperature.—The first typhoid fever patient took on the ninth day 75 centig. of the sulphate, and the temperature fell 5.8° Fah. During the eight days following he took 50 centig. each day, with a mean fall of 3.6°. On the two following days he took 45 centig. each day, with a fall of 4.2°, 7.2°, and 4.8°. These were the 18th and 19th days of the disease. In thirty days he took daily doses of from 30 to 50 centig., with one dose of 75 centig., and the mean fall for the thirty days was 4.1°. Another typhoid fever patient took 50 centig. for four days, from the 14th to the 17th day; the minimum fall was 3.9°, and the maximum 5.4°. The mean fall in the cases of typhoid fever was 3.9°, and the average daily drug taken from 10 to 50 centig. In the cases of febrile tuberculosis the effect was scarcely less remarkable. The mean fall of temperature was about 4°, and the daily quantity from 10 to 50 centig.

Rapidity of action.—To properly appreciate this important matter, Jaccoud made a uniform calculation for all cases; the interval of time was measured from the time of administration to the time of lowest temperature. In the twenty seven administrations to six cases of typhoid fever the mean time was one hour and a quarter; for twenty seven administrations in seven cases of tuberculosis the mean time was about three hours. In the cases of pneumonia, the mean time was about one hour and three quarters, and in the case of erysipelas the time was three-quarters of an hour. From these results it seems that the nature of the disease has some effect on the rapidity of the action of the drug, and that it acts more slowly in tuberculosis than in any other disease.

Duration of the effect on the temperature.—Here also the nature of the disease seems to have an effect, and the effect is least lasting in typhoid fever. As regards the persistence of the minimum effect, it must be said that almost as soon as the thermometer has reached the lowest point it begins to rise again. As regards the time necessary for the temperature to rise from the minimum to the point of departure, the mean in typhoid fever was two hours and a half; in tuberculosis three hours and a quarter; in pneumonia three hours; in erysepelis four hours.

The effect on the patient.—When the temperature commences to fall the patient begins to sweat freely, this lasting until the lowest thermometric point has been reached; the perspiration then diminishes, and ceases during re ascension. When the mercury begins to rise the patient, covered with perspiration, complains of a sensation of coldness, and in some cases there is a slight short chill. These effect are less marked than when antipyrin is used. In none of his cases did Jaccoud observe any gastric or cephalic effects, nor were there any phenomena relating to the organs of sense. It may be said, then, that the accessory effects may be said to be *nil*, on account of its energetic action, however, the medicine should be given with caution: collapse may be easily induced, even with moderate doses in cases of individual idiosyncrasy. It is the part of prudence, therefore, not to exceed a quantity of 20 or 30 centig. on the first day; and when the patient is much debilitated the quantity should not exceed 10 or 15 centig. As is the case with many drugs, thallin sometimes produces an exanthem, exactly similar to that caused by antipyrine: small spots of papular exanthem, isolated and of small size at first, after which they extend, unite and become confluent; when the eruption is of a fiery red color; it disappears on pressure, and returns immediately when the pressure is removed. It usually begins in the region of the knees, preferably on the internal surface, and looks as though it might be the effect of pressure of the limbs together. When it extends it has the remarkable and characteristic property of extending only on the extensor surfaces. As yet it has not been seen on the face. It is accompanied by a sensation of itching and burning. It usually lasts for about three days, though it may last five. It disappears without desquamation, as a rule. (This, it should be remembered, is the characteristic eruption of both antipyrin and thallin.)

Effects on the disease itself.—As is the case with antipyrin, thallin has absolutely no effects on the symptoms or evolution of the disease except the temperature; and even here it does not affect the general temperature curve. Here again it is somewhat similar to antipyrine.

As regards antipyrin and thallin, then, it must be concluded that these agents are not a real addition to medical therapeutics.—*Bulletin de l'Academie de Medecine*, No. 43, 1885.

[In a communication presented to the Academie on the following week, M. DUJARDIN-BEAUMETZ takes issue with Jaccoud as to the value of antipyrin and thallin. He denies the superiority of thallin over antipyrin, and asserts the couverse for the following reasons: It is less active, and therefore more manageable; its depressing effects are less marked: and because thallin acts on the blood, and lowers the temperature by diminishing the respiratory power of the blood (in which it resembles kairin). Antipyrin, however, (and like it, salicylic acid, quinine and resorcin) lower temperature by acting probably on the thermogenic centres of the spinal cord. Kairin and thallin are not antiferments (as antipyrin, resorcin, etc.), but act directly on the blood globules, as has been shown by Brouardel, Loye, Hénoque, and Huchard. They may, therefore, be dangerous in the infectious diseases, in which the blood is already altered, and should be used only with great caution. Dujardin-Beaumetz admits that antipyrin has no direct influence on the course of the disease; that it is not well borne by some patients; and that the sweats caused by it enfeeble the patient. It is nevertheless true that its effects on tuberculous patients are excellent, and much more frequently good than bad. In the fever of resorption *(fievre de resorption)* antipyrin is superior to quinine and salicylic acid. We cannot expect to cure consumption by it, but we can successfully combat the pyrexia or hyperpyrexia, and for this purpose alone antipyrin is least objectionable. He believes, therefore, that antipyrin is a positive addition to therapeutics.—*Bulletin de l'Academie*, No. 44, 1785.

In Guttmann's opinion antipyrin is far superior to thallin or kairin, and entirely free from objectionable concomitant symptoms. Landenberger, Livierato and Predazzi, on the other hand, consider thallin as the best pure antipyretic, and assert that *it* is free from concomitant symptoms. Landenberger has used it in croupous pneumonia, typhoid fever, peritonitis, pleurisy, tuberculosis, erysipelas of the face, miliary tubercle, acute rheumatism, puerperal fever and gastric fever sixty-nine cases in all. He administered it in single doses of gr. iv (25 centig.), gr. viii, and gr. xvi. The pulse fell in the same ratio after large and small doses, but the respiration was not materially influenced. Livierato and Predazzi used thallin in pneumonia, intermittent fever, pleurisy, diphtheria, and other febrile diseases, with success.]

DEODORIZED IODOFORM.—Many attempts have been made to overcome an almost fatal characteristic of iodoform—its disagreeable smell—without destroying the antiseptic virtues which it possesses. Surgeon-Major OPPLER, of Strassbourg, has just communicated to the *Centralblatt fur Chirurgie* the results of some experiments in this sense, which seem to have solved the problem. He takes finely ground coffee and mixes it with the iodoform in varying proportions, 30 per cent of the coffee almost neutralizes the odor, while 40 to 50 per cent completely destroys it. Mixed with iodoform ointment (1–10) in the same proportion, coffee quite deodorizes it. A point of great importance is that coffee itself possesses great antiseptic power, and exerts no deleterious effects on the wounds. Thus a smaller quantity of iodoform suffices, the disagreeable odor is abolished, and the occasional evil effects are done away with. Coffee has the power not only to arrest decomposition, but also to postpone it. Professor Lucke is of opinion that coffee-iodoform may answer well enough for outward applications, but that it is unsuited for the interior of wounds, as the coffee would be a foreign body and interfere with healing. The coffee, previously roasted, of course, must be ground into a very fine powder before the iodoform is added, and the two must then be intimately mixed. Time alone can decide whether this combination will secure a much desired end, or whether, like peppermint oil, tonquin beans, tannin, Peruvian balsam, and other substances which have from time to time been tried, the iodoform will prove itself the stronger.—*Medical News*, August 29, 1885.

SURGERY

IMPROVEMENTS IN EXCISION OF THE KNEE-JOINT, AND IN THE LIGATURE OF LARGE ARTERIES.—MR. EDWARD THOMPSON says, on this subject: There are some points in the treatment of excision of the knee-joint, both at the time of operation and subsequently, which seem to me to deserve particular attention. I have had a good many of these cases under treatment from time to time in the Tyrone Infirmary, and the suggestions I have now to make, and which I desire shortly to detail, are the outcome of my experience.

In the first place, I always make the first incision nearly straight across the limb, and as small in extent as possible, with one sweep of the knife the ligamentum patellæ is cut through, and the joint opened. The upper end of the ligament is then seized and dissected off the bone, and the patella removed. The subsequent steps of the operation require no comment. When the bleeding has ceased, the cut surfaces of bone are placed in close apposition, and the divided ends of the ligamentum patellæ are strongly stitched together with carbolised silk, the skin-flaps are brought together in the usual manner, and the wound closed no drainage tube being inserted. The limb is at once put up in plaster of-Paris, with a back splint of strong hoop iron, another strong piece of iron is bent over the situation of the wound, so as to allow the application of the proper dressings, two side-splints of hoop iron, about eighteen inches long, and slightly hollowed over the wound are placed lengthways, across the site of the joint, and over the plaster of-Paris, the whole being firmly secured by a bandage. A completely rigid and comfortable bed is thus secured for the injured limb. The upper and lower portions of the limb are padded with French wadding, and, close to the wound, with carbolic tow. If there be any discharge from the wound it will penetrate the tow, which can be readily removed and replaced without disturbing the limb. I have heard a great many discussions, and read a great many elaborate articles, on the proper method of treating these cases, but, as yet, I have seen no apparatus which is so easy of application or so reliable as the plaster case I have attempted to describe, and which is coming into very general use.

The chief points I wish to emphasise are—1. the small extent of the primary wound really necessary, 2, the preservation of the ligamentum patellæ, not by its non division, but by the divided ends being stitched together, 3, the enormous anterior support afforded by the preservation of the ligament, and the lessened tendency to displacement, 4, the increased power given to the limb by preserving almost intact the insertion of the powerful crureal muscle, 5, that stitching the patellar ligament seems quite as efficacious as the recommendation by some authors of its non division, and that, while effecting subsequently the same purpose, it in no way hinders, or renders more difficult, excision of the joint.

In all my recent cases of amputation of the thigh, I have tied the femoral artery with a strong carbolised silk ligature, and cut off both ends short. The wound has healed, and remained healed, in every case. Thus a troublesome cause of irritation—one end of the ligature being left hanging from the flap—and a very great impediment to the healing of the flap-wound by first intention, has been effectually got rid of.—*British Medical Journal*, Nov. 7, 1885.

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer s full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM, IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, DECEMBER 5, 1885

THE RELATIONS, PAST AND PRESENT, OF THE AMERICAN MEDICAL ASSOCIATION TO THE NINTH INTERNATIONAL MEDICAL CONGRESS

From the erroneous statements that continue to be made in certain portions of the medical press of our own country, and still more in some of the medical periodicals and by distinguished individuals of other countries, it would appear almost a hopeless task to correct such statements, or to get the sources from which they emanate to comprehend and acknowledge a few simple but important historical facts

For instance, Prof Virchow is represented as recently saying that "the American Medical Association, a vast society of practising physicians, extending throughout the land, *usurps* the control of the organization of the next session of the Congress, and creates such confusion that I am informed, *verbally* and *by letter*, that no one at present is able to see his way out of the difficulty" The *Berliner Klinische Wochenschrift* speaks of "sitting under the *presidency* of Dr Shoemaker" The *Medical Times*, of London, after quoting the *Wochenschrift's* transformation of Dr Shoemaker from a simple Secretary of a Committee of Arrangements into the President of the Congress, exclaims in apparent apprehension "Suppose Dr Shoemaker and his friends decide that the Congress of 1890 shall be held in Texas!" The editors of a few of the medical journals in this country exhibit but little less confusion of ideas regarding everything that has been done, either by the American Medical Association or its Committee of Arrangements They persistently confound the Committee of Arrangements and its Chairman and Secretary with the officers of the Congress, and some of them even now regard the present organized Executive Committee of the Congress as a "sub committee of the Committee of Arrangements"

The *Medical Record*, of New York, in its leading editorial for November 21, 1885, after its customary misrepresentations about "New Code" and "medico-political issues," neither of which have anything more to do with the present Rules adopted for the Preliminary Organization of the International Congress, than they have with the war between the Kings of Servia and Bulgaria, says "A few weeks ago the Executive Committee of the Congress passed a resolution declaring their independence of the American Medical Association, and thus entirely cutting themselves away from the authority of that body" Again it says "As matters stand at present, the management of the next Congress is in the hands of an Executive Committee representing the new and enlarged Committee, the best men of the country have withdrawn from all connection with the Congress, and the great majority of the numerous important vacancies in the list of officers remains unfilled" And it concludes with the following extraordinarily *patriotic expression* of sentiment "As there seems to be distrust of the Congress abroad and absolute hostility to it at home, the question is asked if it would not be wiser to have no Congress at all? Under the present policy this seems to be *very advisable*"

Here is exhibited a singular idea of the obligations incurred by the profession in the United States when the invitation extended in its name was formally accepted by the last Congress in Copenhagen in open session, and it became impliedly pledged to make every needed arrangement for the meeting it had invited The maintenance of simple good faith in the performance of duties voluntarily assumed on the part of the profession of our country, to say nothing of its honor and scientific interests, appears of very little importance in the estimation of the *Medical Record* Because there have been sufficient differences and misunderstandings, fostered actively by the *Record* itself, to create *distrust* abroad, and some direct hostility, largely again from the *Record* itself, at home, the profession of this country should ignominiously forfeit its obligations to the profession of the world and let the International Medical Congress, it had invited to assemble in our National Capital, die Yes, rather than lay aside personal prejudices and individual preferences, and come together under Rules confessedly unexceptionable, and a Preliminary Organization capable of accommodating fairly all desirable interests, the *Medical Record* says "to have no Congress at all seems to be very advisable"

We are glad to know that such sentiments are shared by only a very few members of our profession, and that there are gratifying indications of returning harmony, sufficient, at least, to maintain the honor and integrity of the profession, and make the Congress of 1887 equal to any that have preceded it, even though the *Record* should continue its unpatriotic misrepresentations to the end But how much better would it be for all parties, if now, when the Committee of Arrangements has transferred the whole future management of the Congress to the Executive Committee of the Congress itself under the most liberal Rules, all parties should lay aside their personal preferences, at least so far as necessary to restore that cordial cooperation which would speedily remove the *distrust* abroad, and render *hostility* futile at home The Executive Committee have formally invited this cooperation, and are delaying the filling of the only three important vacancies that remain at the heads of Sections to learn the results of their overture

THE CONTAGIOUSNESS OF LEPROSY

At the meeting of the Académie de Médecine, of Paris, on July 28, M Constantin Paul read a report on a study of the lepers of Constantinople, by Dr Zambaco In this report he attempts to show that leprosy is not contagious, he does not admit that a healthy person can contract the disease from a leper, even by inoculation, and this conclusion has been reached after a thorough study of the disease in Norway, Egypt and Constantinople And while he cannot admit the influence of contagion, he thoroughly endorses the views as to the hereditary origin of the disease,—views which are supported by the investigations of Boeck and Danielssen, and also by a study of the disease as it occurs in restricted localities, such as in Louisiana and New Brunswick, where it may be traced back in families for several generations, as in Norway

At the meeting of the Academie on October 13, M E Vidal read a paper on "The Contagiousness of Leprosy," which was substantially an answer to the communication of M Zambaco As to heredity being the sole factor in the propagation of leprosy, he thinks it sufficient to say that the children of lepers often remain free from the disease, that even when these children are attacked the disease seldom makes its appearance before the eighth year, and that it may skip one or two generations entirely Since Zambaco is an advocate of the theory of heredity, he has made the most careful investigations on this point in the East, but he has been able to find that in only one fortieth of the lepers is the disease directly or indirectly hereditary Even in those places which afford the strongest proofs of heredity it often fails to appear in the descendants of lepers, and often affects persons in whose families it has not previously existed, and it is a well recognized fact that it sometimes affects persons, in countries where it is not at all prevalent, who have visited places in which it is endemic, and that immigrants to infected from non infected districts are often attacked (White)

In order to explain how so small a proportion of the cases in the East are traceable to hereditary transmission, Zambaco thinks that the disease, necessarily of external origin, is *acquired*, the preponderating influence being attributed to want, eating salt fish of inferior quality, and in some cases to violent moral emotions The theory of transmission by inoculation, however, is strongly supported by some of the examples cited by Zambaco He says "Lymphatism and scrofulism predispose to leprosy I have often seen persons who had for several years had scrofulides or common affections of the skin (eczema, psoriasis, prurigo, acne rosacea, itch, etc) later become leprous, and sometimes preserve the old cutaneous affection along with the leprosy" But are not these persons, asks Vidal, debilitated by want and disease, living promiscuously with lepers, in the most favorable conditions for contracting leprosy? In contact with the blood and pus from the ulcers of those already affected, is not the skin, which is already excoriated and open to inoculation, in a fit condition for infection? It need scarcely be said that those who have studied the disease as it exists in the Hawaiian Islands, firmly believe that it is contagious in the sense of being transmitted from one person to another by inoculation, as may be seen by reference to the writings of Kneeland White, and Tryon The physicians in the islands of Reunion and Mauritius believe in the contagion of leprosy Le Juge de Segrais writes that there are several thousand lepers in Mauritius, and that all the physicians on the island believe that the disease is essentially contagious "There is no doubt of it It is also hereditary, attacking families in good circumstances, in which want has never existed"

The first methods of segregation of lepers, says Vidal, arose from the ideas as to its contagiousness, and facts show conclusively that this is by far the best method of dealing with the disease, so far as preventing its spread is concerned As regards the question of contagion, however, he thinks that leprosy is contagious only by inoculation Without admitting the possibility of this mode of transmission it is impossible to explain very many cases of leprosy Doubtless such inoculation is often difficult, and a long time must sometimes elapse before the effects are seen On the other hand the effects sometimes appear very quickly Vidal cites the case of a woman who became leprous soon after her husband contracted the disease, there being no history of leprosy in her family, and she had never been outside of France The husband contracted the disease at Nice, where there were a number of lepers Similar cases have been reported by other writers, the most recent by Poupinel

---

In connection with this subject may be mentioned the recent report of Brigade Surgeon H V Carter, of the Indian Medical Service, British Army, on the prevention of leprosy by segregation, quoted in the *British Medical Journal*, of Nov 14, After reviewing the status of the disease in Norway, and the death rate, and the influences that may have tended to lesson the prevalence of leprosy he concludes that "the amendment of public health cannot be satisfactorily accounted for by reference solely to a general improvement in diet, dwellings, soil, or climate, nor has purely medical treatment ever proved curative, and so far from leprosy, in Norway showing a natural tendency to subside, there is ample evidence of a present activity equal to that displayed by the disease twenty-five years ago " He thinks that there are three practical methods of segregation, which may be separate or combined (1) The erection of plain asylums at certain centres, each to be a refuge common to several districts, and a place of detention, under proper management and supervision (2) The foundation of leper colonies or village communities of the affected, who, while allowed more liberty of movement, should not be allowed to mingle with the peasantry around, which would need strict supervision, (3) Requiring the strict isolation of lepers who are retained in their own homes at the request of their friends, for which suitable separate lodgings are indispensable

As regards the statement "nor has purely medical treatment ever proved curative," it should be remembered that Unna has reported a case of lepra tuberosa cured in four months (see THE JOURNAL, October 31, 1885, p 486) Such a report coming from so careful an observer admits of no reasonable doubt, and is worthy of great attention by those who have the care of lepers

CREOSOTE IN THE TREATMENT OF CONSUMPTION

The history of creosote exemplifies the mutations to which therapeutics are liable, particularly as regards phthisis Furthermore, the change of professional opinion from time to time, and the contradictory statements of physicians concerning the value of remedies in tuberculosis only illustrate the powerlessness and desperation felt by medical art when opposed by so dreaded a foe

After the discovery of creosote by Feichenbach, in 1830, and before its therapeutic range became limited by practical experience, it was recommended for almost every form of internal and external disease One of its many uses, suggested perhaps, by the fact of its derivation from wood-tar, was in the treatment of pulmonary complaints, and in consumption it soon won great distinction After a time, however, the remedy fell into discredit in the treatment of phthisis, except in the form of an atomised solution for inhalation Used in this way it long retained considerable popularity, particularly when the sputa were fetid Although its internal administration was abandoned in consumption, it was not altogether dropped from the list of agents available for chronic bronchitis, while on account of its hæmostatic properties it was occasionally administered in pulmonary hæmorrhage Nevetheless the internal use of creosote was exceptional, and the mass of the profession employs it only in inhalation

It is with all the greater interest, then, that we find Jaccoud reverting to one of its discarded uses, and recommending it strongly as one of the indispensable internal remedies in the therapeutic management of consumption In his recent work, to which reference has been made repeatedly in the editorial columns of THE JOURNAL, he dwells at some length upon the therapeutic indications furnished by the general malnutrition of tuberculous patients These indications are met by hygienic measures, and the administration in large amounts of cod liver oil, glycerine, iron, arsenious acid, etc But there remains a second indication, which is to counteract the irritation and other local effects of the lesion Formerly Jaccoud met this indication, he states, by the administration of balsams, tar, or turpentine, but since the investigations of his eminent colleagues Bouchard and Gimbert with beechwood creosote he has substituted this agent for the others just mentioned He is of the opinion that it acts more rapidly and surely in lessening expectoration and ameliorating the bronchial lesions, and thus tends to limit the extension of the local changes "Nor is this all, since creosote seems also to have some effect on the fundamental lesions themselves, and to promote the sclerotic change by means of which recovery is found to occur in this disease."

He has often observed that after the physical signs have shown the pulmonary disease as diminished in extent, and the "peritubercular catarrh" lessened, the administration of the drug for several months longer has resulted in a still further decrease in the area of the local changes. This limitation of the disease he ascribes to sclerosis of the peripheral tissues. "On account, then, of these and other analogous facts, creosote, combined with other means of treatment, seems to act not only upon the catarrhal but also upon the tuberculous lesions, causing the sclerotic change to predominate over that due to sloughing or caseation." It should be said that, in addition to vigorous measures directed to the improvement of the constitutional condition, he employs alcohol, with strong and declared faith in the power of this last named agent to promote the sclerotic change. "Independently of these results, creosote may be also recognized to have an antiseptic or anti putrid effect, on which account the fever due to absorption (*la fievre de resorption*) is averted for a considerable time." Creosote is, in his estimation, so valuable as to be an indispensable remedy, and he never omits to employ it. Although not immediate, its effects are permanent and decided, even when given in small doses. Pyrexia is no contraindication to its employment. Indeed, the only limitation to its use is the gastralgia which it provokes if the stomach be irritable, or the dose too large. In order to avoid this complication, the dose should be small, in which case the remedy can be taken for months with benefit.

If intolerance once occurs, it is most difficult to again administer the drug. "It should therefore be the rule to administer a small dose at first, and to increase it but gradually, beginning with the amount of not more than 3 minims daily, which may be increased by 1 minim in each week or ten days until as much as 5 or even 6 minims are given. This dose should never be exceeded, and is but rarely reached." Jaccoud no longer administers creosote in capsules, because of the gastric irritation produced, nor does he give it in wine, owing to the disagreeable taste of the mixture. He combines it with the cod-liver oil or glycerine, as follows: Cod-liver oil, 2 ounces; creosote, 3 minims; and oil of peppermint, 1 minim. This constitutes the daily dose, and, owing to the peppermint, is not disagreeable to take. If glycerine be employed, the formula is: Glycerine, 12 drachms; cognac or rum, 3 drachms; creosote, 3 to 6 minims; and essence of peppermint, 1 minim. This combination is highly agreeable and beneficial, and can be taken, according to Jaccoud, for an indefinite length of time.

Although one may not be inclined to endorse or accept all of Jaccoud's conclusions concerning this remedy, yet the experience of so skilful a clinician should not be allowed to go for naught. It is not unreasonable to assume, therefore, that, if employed systematically and persistently in the treatment of consumption, creosote will yield better results than is generally believed, and that the praise lavished upon it in years gone by was not wholly unmerited.

HYPNONE—THE NEW HYPNOTIC

Phenyl methyl-acetone or aceto phenone are the chemical names of a new drug, upon the hypnotic properties of which M. DUJARDIN-BEAUMETZ has recently made a report to the Académie de Médecine, and which he has thoroughly studied with Dr. Bardet, at the Hôpital Cochin. On account of its very marked hypnotic properties the experimenters propose for it the name hypnone, which is more convenient than the other names, and is at the same time descriptive of its properties and nature. It was discovered by Friedel in 1857; its formula is C_8H_8O; it is a liquid at 20° C., and boils between 198° and 199° C. Its specific gravity is from 1,032 to 1,015; it is not soluble in water, and its strong odor resembles that of cherry-laurel water or cut oats. Its physiological properties have been studied by Popoff and Nencki, who showed that it is transformed in the organism into carbonic and benzoic acids, and that it is finally found in the urine in the hippurate state.

When administered to an adult in doses of 3 or 4 drops—5 to 15 centig.—mixed with a little glycerine and given in a gelatin capsule, hypnone produces deep sleep, and in alcoholic subjects its hypnotic properties are superior to those of chloral and paraldehyde. Dujardin-Beaumetz and Bardet have administered it to nine patients, and have as yet seen no symptoms of intolerance. The halitus becomes unpleasant from the elimination of acetone by the lungs. Injected under the skin of a guinea-pig 50 centig. caused profound sleep, which deepened into coma, in which the animal died in about six hours. The discovery of a drug with such effects from a very small dose must be regarded as a valuable addition to therapeutics. It still remains to see why it is a hypnotic, and whether further experimentation will abundantly confirm the claims of the distinguished clinician who now reports upon it.

SOCIETY PROCEEDINGS

OBSTETRICAL SOCIETY OF PHILADELPHIA

Stated Meeting, Thursday, November 5th, 1885

THE PRESIDENT, B F BAER, M D, IN THE CHAIR

(Concluded from page 612)

Dr William Goodell exhibited the ovaries from

TWO CASES OF OOPHORECTOMY FOR OVARALGIA,

with the following histories When the patient, an unmarried woman, aged 30, first consulted him, she weighed 236 lbs , but at the same time she was very weak and could barely walk She suffered excessive pain at her catamenial periods, which appeared only at long intervals She had cataleptic and hystero epileptic fits, and complained of very constant and acute ovarian pains Her urine was passed but once a day, and this act was attended with much suffering The womb was enlarged and the ovaries were very tender indeed, but nothing else abnormal was discovered Asafœtida and the bromides were prescribed in large doses, and she was advised to try the rest treatment Fourteen months later, she was again brought by her physician to consult Dr Goodell She now weighed only 120 pounds, having lost 116 pounds, and she was in every respect worse, her ovarian pains being now constant and very acute, requiring large doses of morphia to control them Her catamenia had not appeared for nearly four months, and tonics seemed to have no effect whatever on her Her physician was compelled to be in constant attendance on her, and was liable to be summoned at any hour of the day or night to give her a hypodermic injection Masturbation was suspected, but she always denied practicing this habit Nothing further could be done than the operation of oophorectomy, which was accordingly performed a few days later at the hospital of the University The ovaries were found much enlarged from cystic and interstitial degeneration, but there were no evidences of peritonitis or of cellulitis, which had been suspected A corpus luteum existed in one ovary, a rectal hæmorrhage or vicarious menstruation having taken place a few days before the operation Her ovarian pains at once left her, she needed but very few doses of opium, which was given by rectal suppositories Her convalescence was prompt, and she returned home in less than four weeks free from all pain, and in a fair way to get perfectly well The case was a typical one of the advantages of oophorectomy, nevertheless he thought that the operation was being performed altogether too frequently

OOPHORECTOMY FOR BLEEDING FIBROID OF THE WOMB

In this case the lady was 37 years of age, and had been married eleven years She gave birth to a child about seven years ago, and since then has had one premature birth at seven months and one miscarriage She first noticed an abdominal tumor nine years ago, but her catamenia began to be free some time before this Late in the year 1881 the catamenia began to be excessive As nothing served to check them, early in the following year Dr Goodell was consulted He found multiple fibroid of the womb Six tumors could be readily made out, of which two seemed pedunculated, the sound gave a measurement of 4 5 inches Under ergot and ammonium chloride the patient improved for several months, then the menorrhagia became worse, and finally a dribbling of blood kept up between the periods In May of the present year, she again consulted Dr Goodell She had been dribbling continuously from January, and was much reduced in strength Being a brunette, she exhibited the *facies uterina* in a most marked degree, the pigmentation being very dark and extensive The womb now measured 7 5 inches She was admitted into Dr Goodell's private hospital, and on May 24 both ovaries were, without difficulty, removed They were greatly enlarged by follicular degeneration, a condition which Dr Goodell had repeatedly seen in cases of fibroid tumor The effect of the operation on the tumors, and especially on the main one, was astonishing After two weeks this fibroid had diminished in length nearly a hand's breadth Her recovery was prompt, and she was sent to Atlantic City to recruit On July 10, just forty-seven day days after the operation, she called on Dr Goodell, who found the tumor very greatly reduced in size and the uterine cavity measuring only 3 25 inches, a diminution of 4 25 inches This extraordinary amount of diminution, in spite of the fact that the obliteration of the ovarian blood vessels cut off only a small portion of the blood supply to the womb, drove him to the conclusion that the ovaries were the important factors in inviting blood to the womb Every successful case in which he had removed the ovaries for fibroid tumor of the womb had been followed by the menopause and by rapid diminution in the size of the tumor But in his hands, and in those of others, this operation was more fatal than that of ovariotomy During the ten months of the present year he had had twenty-five cases of ovariotomy with but one death, and that one in a lady operated on at her home, 200 miles from Philadelphia For simple cases of oophorectomy the mortality should not be greater than that of ovariotomy, but, when complicated with the presence of a large or an adherent fibroid tumor, the operation is often one of great difficulty Twice during the past year he was unable to reach the ovaries, and was compelled to abandon the operation because, in neither case, was the woman willing to undergo the risk of having hysterectomy performed Each case recovered, and while the women were under observation the tumors appreciably lessened in size, as if the shock of the exploratory incision had temporarily suspended the ovarian influence

Dr E E Montgomery was glad to hear the good results in Dr Goodell's cases In a few of the cases upon which he had operated, the menopause did not at once occur, sometimes not for two years after the operation In such cases the tumor did not decrease in size while menstruation continued In the case of hysterectomy for fibroid tumors reported by Dr Montgomery at the last meeting, the temperature at no time exceeded $101\frac{3}{5}$°, and the patient left the hospital to day, perfectly well He preferred removal of the uterus and its appendages entire when the ovaries cannot be removed in consequence of previous inflammatory changes Ligation of blood-vessels supplying the tumor might be useful when nothing better could be done

Dr Baer thinks that when the ovaries can be removed, it is the preferable operation

Dr Goodell has been so uniformly successful in removing the ovaries for the cure of fibroid uterine tumors, that it is his choice He has been notified that in a case of fibroid tumor of the womb in a woman aged 33 years, he will be called in consultation, this will be the third He will advise removal of the ovaries, if at the time of operation that is not found possible, he will close the incision, as the other operation is very dangerous, and the patient can certainly live a few years as she is In one case only of his oophorectomies have the menses continued, and he thinks that in that case there must have been some supplementary ovarian tissue

Dr E E Montgomery exhibited for **Dr W H Warder**

A LARGE OVARIAN TUMOR,

and related the following history The patient was a young woman Her menses commenced at 17 years of age and had always been irregular They ceased entirely for twelve months, and at the same time the abdomen was enlarging until the tumor reached above the navel Fluctuation was doubtful, the mass seemed quite solid, and pressed the uterus down into the pelvis Anæsthesia did not relax the abdominal wall, and diagnosis was doubtful An exploratory incision, showing the pearly tint of an ovarian tumor, made it sure Nothing would pass through the trocar, but some of the jelly like contents of the tumor escaped beside it and passed into the abdomen The large cyst was filled with small cysts The patient did well for one week, then the pulse became rapid, but she has since been doing well and is now rapidly recovering

Dr Goodell thinks the danger from the escape into the abdomen of cyst contents is overrated

Dr Baer said that in the early stage of ovarian tumors metrorrhagia is sometimes present, sometimes the menses are entirely absent He should like to hear from the Society some reason for this inexplicable difference

Dr Goodell has observed the same fact, but can throw no light upon it

Dr Montgomery remarked that in this case both ovaries had undergone cystic degeneration The second ovary contained numerous small cysts In reply to Dr Baer's inquiry about the treatment of the second ovary, Dr Montgomery said that it was removed

Dr Chas Herman Thomas read a paper on

SOME USES OF COCAINE IN GYNÆCOLOGY

Seldom does a new drug reach so sure a place in the confidence of the medical profession as that accorded to cocaine I early began its employment in ophthalmic practice, and soon extended its use to a variety of gynæcological applications The results obtained have been so satisfactory that I now never go to such a case without cocaine in my bag or pocket After considerable experience in its use, I am convinced that it is quite as valuable in the latter case as in the condition for which it was originally recommended That it is a local anæsthetic when applied to mucous surfaces is a familiar fact, but its property of reducing in inflammation and engorgement of the same class of tissues is not so generally recognized, notwithstanding that is a point of considerable practical importance This action of the drug is readily verified by observing the marked paleness and shrinkage which follows in a few moments after its application to surfaces thus affected While this condensation of tissue is to a considerable degree temporary, it seems to be of longer duration than the accompanying anæsthesia In some cases the good results obtained by reducing hyperæmia in this manner appear to be permanent The common fear that it will fail to prevent pain may usually be overcome by placing a few drops of the solution on the tip of the patients tongue, when the numbness produced seldom fails to induce full confidence in its efficacy

Cocaine hydrochlorate is the salt upon which my experience is based[1] A four per cent solution, gr ijss to f℥j of water, acts well for most purposes, though a somewhat weaker or stronger one may sometimes be substituted with advantage The addition of boracic acid in the proportion of gr ij to the f℥j insure sterility of the solution When used, it should be applied with thoroughness, the parts being first freed from mucus and some minutes allowed to elapse for its effects to develop, the time should be *not less than ten minutes*, and in cases where considerable pain is to be anticipated, a strong solution, ten per cent or more, may be employed, and the application repeated after an interval of ten minutes, and in five minutes from the beginning the full effects of the drug may be looked for That the anæsthesia produced by cocaine is complete, I have personally experienced, having made use of a four per cent solution by injection into the nostrils previous to an application of the galvanic cautery to the nasal cavity The cautery had been applied at a previous occasion without cocaine and the pain was severe With it, not the slightest pain was felt, and I was conscious of the action of the cautery only by the hissing sound produced

I have found it particularly valuable in certain cases of cervical endometritis in which, though there may be no erosion externally, and but little characteristic discharge, there is a state of extreme sensitiveness existing about the region of the internal os uteri, a probe or cotton, easily bringing blood, and any application made to the part is liable to produce bleeding and severe radiating and ovarian pain Cocaine carefully applied with the syringe or the cotton-carrier, prevents the pain and bleeding, which would otherwise follow the necessary medicinal application, the swelling being also materially reduced The congestive or inflammatory stenosis which usually exists is consequently for the time relieved, and applications to the part itself, as well as to the entire endometrium, are greatly facilitated In urethral caruncle sensibility may be so destroyed that the painful excrescences may be clipped off and the site painlessly cauterized Cocaine is also extremely useful in painful irritation and inflammation of the female urethral tract, and especially of the part just within the meatus, a condition attended with distress frequently referred to the bladder Appropriate medication is painlessly made after its application, which may be conveniently made by means of the glass medicine dropper, as a means of preparation for the operation of stretching either the urethra or the cervix uteri it is of unquestionable value To precede the application of caustic to a chancre it is also effective I am informed by my friend, Dr Levis, who has had a large experience with the drug, and who uses it extensively and with great satisfaction, that plastic operations upon the vagina where considerable surfaces are to be flayed, the cocaine anæsthesia is insufficient to prevent pain It has been recommended in dysmenorhœa, and there is good reason to believe from several reports which have been made, that it is capable of producing excellent results when applied to the os uteri and to the cervical cavity by means of a small cotton tampon I tested it recently in a case of uterine colic, using it hypodermically in two doses of one grain each about half an-hour apart, but without appreciable relief It has been tried internally in doses of one grain or more in the vomiting of pregnancy, and has met with some favor, but in the only case within my own knowledge it entirely failed

---

[1] The price has been reduced to ten cents a grain or less

In a case of vaginismus brought me by a practitioner from a neighboring city, the condition was quickly relieved by the local application of cocaine, and a complete examination was easily made, when without its use general anæsthesia would have been necessary In a case of hyperæsthesia of the vagina with mild vaginismus, in which frequent local treatment was required, a suppository containing one grain of cocaine introduced into the vagina a half hour before each treatment, entirely abolished the spasm and rendered the introduction of the speculum easy and comparatively painless Cocaine suppositories also produced excellent results in a case of rectal tenesmus after opium had proved insufficient Cocaine has been recommended in operations for lacerated cervix, and for the crushing of stone in the bladder I have not made use of it in either of these applications, but strongly believe in its value In one hyperæsthetic patient in whom violent pain was developed on slight provocation, and who required local treatment of the cervix uteri and urethra, but who suffered so much from ordinary applications that the local benefit was fully counterbalanced by harm done nervously, it became necessary to suspend treatment on this account After cessation for six months, treatment was resumed under cocaine, and it has since been in every way satisfactory, the pain formerly produced by applications to the cervix being now entirely absent In the same patient painful irritability with spasm of the bladder simulating cystitis, which was not entirely relieved by the opium suppository and other measures, yielded completely, and thus far permanently, to a single injection of one grain of cocaine thrown into the bladder The resumption of treatment in this instance was largely due to the enthusiastic approval of the husband, who had himself experienced complete relief from the injection of a dram of the two per cent solution into the deep urethra for a violent urethrismus In another instance, in a woman with irritable piles, red as a ripe strawberry, and who was suffering extreme discomfort, the piles shrank and turned pale under the cocaine application, and were then painted with tincture of iodine with entire absence of pain

Dr Keating has used cocaine for some time in the same class of cases He now uses eight per cent solutions with great success, especially in children's throats He employs salicylate of cocaine in diphtheria in a five or six per cent solution, sensibility disappears in a short time, and he can then use any application without discomfort He applies carbolic acid, tincture of iodine, etc , in this manner without exciting pain He also applies cocaine before injecting carbolic acid into piles, and also applies it on cotton to prevent its action ceasing too soon

Dr Thomas said that the strength of the solution may, with propriety, be greatly varied, and that in his practice upon the eyes, even a one per cent solution was strong enough to be of considerable value in conditions of irritation produced by foreign bodies in the eye, but in other cases, as urethral caruncle, it might be well to use it even in saturated solution The question of strength is largely a question of expense, for in local application no toxic results are likely to be produced

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

Stated Meeting, October 21, 1885

The President, W W Johnston, M D ,
in the Chair

Dr J B Hamilton presented for the inspection of the Society the patient upon whom he had performed a

LAPAROTOMY FOR A PISTOL SHOT WOUND OF THE ABDOMEN PIERCING THE INTESTINES,

whose case had recently been fully reported in the Journal of the American Medical Association (See page 202)

Dr G N Acker presented

A PSAMMOMA OF THE FOURTH VENTRICLE,

together with the cerebellum and pons The tumor arose from the vessels of the fourth ventricle, and filled the ventricle The arteries of the cerebellum were in a state of calcareous infiltration The man suffered from some vomiting spells, vertigo and convulsions The seizures would come on suddenly and last for some days A brain tumor was suspected

Dr S S Adams read a paper on

ANTIPYRIN, ITS HISTORY, PHYSIOLOGICAL ACTION, AND THERAPEUTIC EFFECTS

(See page 621)

Dr King thought the reduction of temperature in the dog was due to an almost fatal condition of collapse

Dr Louis Kolipinski explained thoroughly the various steps he had taken in discovering the physiological action of antipyrin upon the dog

Dr C E Hagner said he did not propose to discuss antipyrin, for he had had no experience with it He thought, however, that it was a great mistake to be constantly endeavoring to reduce temperature Every disease has a natural course, and within certain limits fever is a part of that course If the patient's system is able to stand the waste, the fever may safely be permitted to run its definite course At any rate, more harm is done by using antipyretics which affect the heart secondarily He believed that many times salicylate of soda and similar drugs rather hasten death than otherwise The same fault, it was true, could not be found with quinine, and for that reason he preferred it as an antipyretic In some diseases it was best to have a high temperature, but when it got too high, he gave plenty of water to drink and had his patient frequently sponged

Dr Taylor thought that the statistics of the London fever hospitals pretty conclusively prove that a large percentage of cures of rheumatism had been effected since the introduction of salicylic acid

Dr J B Hamilton said it was of primary importance to ascertain the cause of the fever If it were due to increased tissue changes, it would be well to retard such changes The experiments with antipyrin had not been carried on long enough to enable us to estimate its true value He thought it hardly fair to call it a patent medicine, though its process of manufacture had been patented

Dr Hagner thought we should not use such violent remedies of whose secondary effects we know so little To get the temperature down should not be the prime mover of our treatment We did not endeavor to get the eruption of scarlet fever off the skin when in the natural course of the disease it should be present

Dr Taylor asked if Dr Hagner did not endeavor to check the diarrhœa of typhoid fever?

Dr S C Busey said he was the first, perhaps, to use antipyrin in this city He had intended using it in the case of a child, but was unable to get any of the drug until too late The patient died The next case was one of erysipelas The man's face and scalp were invaded by the disease He was a steady drinker, though perhaps he would not be called a drunkard Despite quinine his fever rose higher and higher until it reached 105° F He was thought to be dying, and was in fact comatose It was impossible to arouse him Sixty grains of antipyrin, in three powders, given at intervals of two hours, reduced the temperature to 99° F, markedly decreased the pulse rate, and the man became conscious He gave him fifteen-grain doses the next day, and continued the use of the drug for several days The fever never ascended and the patient got well

The next case was one of scarlet fever The patient had a temperature of 104°, and convulsions supervened He gave antipyrin, and later added bromide of potassium The temperature descended to 102°, but the next morning it ascended to 104°, and the patient died He had used the drug in other cases with varying success He had found the depression to last from three to twelve hours He had not, however, given the drug in full doses He would not hesitate to use it in some cases of hyperpyrexia He was sorry to hear Dr Hagner say that every high fever was normal, that he feared to use a drug lest it might intercept its course There are but few drugs, perhaps, whose use is unattended by danger He thought the antipyretic treatment of fevers was generally conceded to be proper A very large experience over the whole world tended to show the value of this method of treating fevers By doing so, complications and other dangers were lessened In croupous and catarrhal pneumonia fever is a considerable element of danger In the exanthematic the fever range is due to the amount of poison Would anybody tell him that a difference of only a half degree between the high maximum and the high minimum of a typhoid fever curve was beneficial? Fever is the factor which exhausts the heart To its influence are due the pathological changes in the muscular fibres Constitutions vary as to their susceptibilities to fever One patient will stand a temperature of 105° as well as another will a temperature of 102° Shall we let one as well as the other run its course? Shall we, through fear, permit parenchymatous changes to occur? Dr Hagner says he prefers the use of cold water Experience teaches that the cold bath is more dangerous than therapeutic remedies Hæmorrhage in typhoid fever is more apt to occur after a cold bath It is better to control the faculty of heat production than to rapidly dissipate it It is for that reason Dr Hagner considers quinine the safest drug Antipyrin seems to dissipate heat Such, indeed, is the theory of heat reduction by diaphoresis

Dr Hagner said from the remarks of the last speaker anybody would suppose that he, Dr Hagner, recommended the elevation of temperature, or at least the application of heat, in the treatment of fever He reiterated his former statement that we have no right to use new remedies without knowing exactly their action on the heart He had seen a child nearly killed by salicylate of soda We do injury by using violent remedies He contended that certain diseases have a natural high type

Dr King said there was no doubt that many diseases have a natural course Among the phenomena of fever is thirst which calls for cool water This should be given *ad libitum*, even if emesis is produced, for it is better to use nature's remedies than poisons But all natural processes are sometimes apt to get beyond the control of nature If enough cool water, air, etc, could be procured, we would rarely need other remedies It is right to let nature alone whilst the disease keeps within limits, but wrong not to check disease by therapeutic means when natural remedies are insufficient

Dr Acker had sought to lower the temperature with antipyrin, but not to bring it to a normal point He stated that rheumatism had been treated by this drug with happy effects without subsequent heart complications He had used antipyrin in the treatment of typhoid fever, and thought it had not affected the heart He had not found the pulse reduced, either in frequency or force

Dr W W Johnston thought there were two important questions embraced in Dr Hagner's statement, one as to the natural processes of disease, the other as to the use of new remedies When we undertake to treat symptoms we may do harm For example, before the use of the clinical thermometer the pulse was most carefully watched, and it was a prevalent idea that in high fever the force and rate of the pulse must be reduced For that reason veratrum viride was given in pneumonia Such a method of treatment is now abandoned, for it is believed that to sustain life it is necessary to have a strong and rapid pulse in order to drive the blood through the lungs of a man suffering from pneumonia He then related a fatal case in point, which he had seen in consultation, in which veratrum viride had been given, where the autopsy found a strong pulse to have been necessary and veratrum viride worse than useless As to Dr Hagner's statement that fever is a necessary element of some diseases, it is stated in Pepper's "System of Medicine," on what authority Dr Johnston did not know, that a high temperature may be necessary to destroy the germs The patient, however, may be destroyed at the same time The prevalent theory now is to bring down temperature Drugs which affect the heat centre are at times useless, for heat is caused by other reasons In typhoid fever, whilst the intestinal catarrh continues, these antipyretics will be local irritants As to the use of new remedies, it may be unwise and dangerous to prescribe them until their true value be known He had had a very disagreeable experience with jaborandi In a certain case of scarlet fever he desired to use a drug which would cause perspiration Jaborandi was given, but so great a secretion was excited from the fauces that the patient literally died of suffocation Antipyrin causes salivation in the dog, hence he would hesitate to use it in scarlet fever He thought the giving of a daily dose of quinine in typhoid fever to prevent the evening rise, may involve error He did not wish to be understood as speaking against antipyretic treatment

Dr Fry thought the question under consideration had two aspects We must first determine whether we have a sthenic or asthenic disease to treat It would be injudicious to choose aconite or veratrum viride to reduce the pulse rate when we need digitalis And so it may be dangerous, in fevers having an asthenic type, to use an antipyretic which has a sedative effect on the action of the heart In alcohol we possess an agent which supports the action of the heart while, by diminishing tissue waste, it reduces temperature

Dr Adams in closing the debate, said antipyrin is as well known as any other drug which is on trial He judged of the effects of temperature by the cerebral symptoms, and such symptoms would influence him in the use of antipyretics He would not be afraid to use antipyrine in scarlet fever with a high temperature He did not believe the drug had any effect on the pathological processes

---

Stated Meeting, October 28, 1885

The President, W W Johnston, M D,
in the Chair

Dr J Taber Johnson presented

UTERUS AND TUMOR REMOVED BY SUPRA VAGINAL HYSTERECTOMY

Mrs W, aged 35, white, married, the mother of one child 8 years old, was brought to my office in June last by Dr Walter, who gave me the following history of her case

In November, 1884, she noticed an enlargement in her right side, and discussed with her mother the probabilities of pregnancy She had too frequent and profuse menses, however, and the feeling gradually grew upon her that the growth in her abdomen was a tumor Her health continued very good She suffered no inconvenience from the growing tumor except from its weight and size There was a noticeable interference with the functions of the bladder and rectum, but no more than had occurred during her pregnancy eight years ago In April or May she consulted Dr Walter, who, under the suggestion that she might be pregnant, declined to use the sound, and as her health was not suffering, advised only symptoms should be treated, and that time would prove whether she was with child or not

Dr Walter brought her to my office on the 27th of June, when I diagnosticated an ovarian tumor, with fluid so thick that fluctuation was difficult or impossible to detect, and suggested operation at once, or as soon as the hot weather should be passed This was readily agreed to, and the first week in October appointed for the removal of the tumor I made several examinations in the meantime, and believed the tumor to be cystic from its general feel, but could never get any fluctuation I suggested that the fluid might be colloid, in its etymological sense I had no thought of malignancy, the patient being robust, of good color, good appetite, and feeling perfectly well She had not lost flesh, and had no cachexia

During the meeting of the American Gynecological Society I requested one of its distinguished members, who has performed and witnessed hundreds of abdominal sections, to examine Mrs W with me He kindly did so, and expressed a very positive opinion that the tumor was a solid fibroid, and as it was rapidly growing, that the proper operation was the removal of the uterine appendages, with the hope that the tumor would stop growing and soon disappear

This change of plan was explained to the patient and her husband, and October 7 fixed for the operation The lady was admitted to a private room in Providence Hospital on the 5th, and the abdomen was opened on the morning of the 7th in the presence of Drs Bromwell, Walter, Cutts, and the resident physician, Dr Hickling

When the abdomen was opened, instead of a solid fibroid I found a tense cyst, which was free from adhesions as far as could be ascertained with the finger or a large mole sound passed freely in all directions over the anterior surface of the tumor The tumor was tapped and about eight pounds of clear amber-colored fluid withdrawn Traction was made on the cyst, but it would not come Upon passing in my hand after enlarging the opening from the umbilicus to the pubic, it became apparent that the tumor was attached posteriorily over its entire surface

The separation of these very numerous and powerful adhesions occupied more than an hour They were so strong that it required nearly my entire strength to break them and lift the tumor out of its bed and to turn it out of the abdomen The difficulty seemed so great that at one time I thought of enlarging the opening, putting in a drainage tube, and stitching its edges to the abdominal incision, with further efforts, however, I was able to turn out the entire tumor It was then found that the attachments to the uterus were so intimate that they could not be separated without producing great hæmorrhage, and the removal of the uterus was finally determined upon

The clamp was then applied at the internal os, and the uterus and tumor were cut away with the thermo cautery knife The stump was secured in the lower angle of the wound, and the incision in the abdominal wall closed with eight silk sutures, after clearing out the abdominal and pelvic cavities a drainage tube was put in above the pedicle The usual dressing was applied, and the patient put to bed after being on the table two hours and twenty minutes I feared the lady would not live twenty-four hours, and so informed her husband

She, however, had a good night, and has continued to do well from that day to this Her highest pulse was 108, and temperature 101°, and that only for one day Her pulse has not been above 80 for two weeks, and her temperature has not been more than one degree above normal during that time The drainage tube permitted the removal of an ounce of bloody serum the first day or two The quantity grew less and less until on the seventh day none could be drawn up, and it was removed The pedicle and clamp came away on the fourteenth day, since which time the improvement has been rapid, and now, three weeks from the operation, the patient is sitting up in bed and eating a liberal diet She looks and feels well, She cannot use the bed pan, and now gets up and sits upon a commode by the side of the bed

From the appearance of the cyst and its contents I feared that there was a colloid degeneration of the tumor, and therefore took it to the Army Medical Museum for examination, and I regret that I cannot present a better outlook for the future of the brave lady who has been through such a trying ordeal

The following is the report of the microscopist of the Army Medical Museum

War Department, Surgeon General's Office,
Army Medical Museum,
Washington, D C, Oct 27th, 1885

J Tabor Johnson, M D

Dear Doctor —The abdominal tumor sent here for examination proves to be a cystic adeno carcinoma of the ovary, the diameter of the cysts ranges from 1 200 to 1 20 inch, and they are lined with columnar epithelium, which is ciliated in most of the cysts, they are filled with degenerated mucoid tissue, which has scattered in it large epithelial cells Besides the cystic formation, there is a decided cancerous infiltration which occurs in patches, and has the appearance of a cylindrical epithelioma. The uterus is also infiltrated with the carcinoma, but has not undergone cystic degeneration

Respectfully, W M Gray

While a reference to the statistics of supra-vaginal hysterectomy is not in place in a report accompanying a pathological specimen, still a few words on this subject may be pardoned The impression prevails, I think, that this is a very fatal operation when performed, as it usually is, for the removal of uterine fibroids, and yet Keith has recently reported thirty-eight cases of the removal of the uterus above the internal os, along with fibroid tumors—the average weight of which was fourteen pounds—with only three deaths, or a mortality of about eight per cent In the last edition of his book, Sir Spencer Wells gives the results after hysterectomy in thirty-nine operations with twenty nine deaths In Bigelow's tables, which were supposed to place conveniently on record all published cases up to the date of his paper, there were 359 operations with 227 recoveries and 132 deaths These operations were done in all parts of the world, and in many cases in series of twos and threes by inexperienced operators, and hence this great mortality

It would seem that the greatest success is attained by those who have had a large experience in ovariotomy Thus Keith remarks that he trembles to think what would have been the fate of the women he operated on had it not been for the experience in abdominal surgery gained in the performance of ovariotomy Knowsly Thornton gives similar testimony In 1882 Thornton reported twenty five cases of removal of uterine tumor, with nine deaths In 1883 he read a paper in Liverpool on this subject in which he reported six additional operations with only one death Within a few weeks Mr Thornton has sent me another paper in which he reports thirty eight new cases of supra vaginal hysterectomy with only two deaths Keith says that Bantock is by far the most successful of all the London operators, and his numbers are the largest

Lawson Tait, Schrœder, and Hegar have also had wonderful results in this operation when compared with earlier experience For the relief of the ordinary uterine myoma oophorectomy, or Tait's operaation, offers the greatest safety and best results Tait recently reports fifty-eight cases of Tait's operation during the last year for myoma, with success in every case, and adding the previous year's experience of fifty cases, makes a a series of 108 oophorectomies with but two deaths There are certain cases, however, which demand surgical relief, which can only be obtained by supra-vaginal hysterectomy, and it is a satisfaction to see the statistics of this very formidable operation improving.

Dr. Johnson also presented a

UNILOCULAR CYST OF THE OVARY.

This is a case of simple unilocular ovarian cyst which was removed last Thursday morning from a lady in Providence Hospital. There is little of interest connected with it, except that there were firm and dangerous adhesions to the vermiform appendix and to the intestine just below it. She and her husband both inform me that she was not long ago under the care of a gynecologist who assured them positively, both verbally and by letter, that there was nothing the matter except an unusual deposit of fat. The cyst and contents weighed just twelve pounds.

The lady, Mrs. P., 23 years of age, is the mother of two children, the youngest being 4 years old. Had a miscarriage three years ago, since which time she has been slowly increasing in size. She came to me from Fall's Church, Va. Drs. Lincoln and Busey agreed with my diagnosis, and with me recommended immediate operation. I sent this lady to Providence Hospital on Monday week, and operated on the following Thursday morning, in the presence and with the assistance of Drs. Hamilton, Cutts, Cuthbert, and the resident physician. The patient rallied well and has not had a symptom of any kind. Her highest temperature has been 100 and her highest pulse 92. She has had no pain and has taken no medicine except one suppository of 10 grs. of quinia and ¼ gr. morphia just after being placed in bed—and that was unnecessary. She is now in her seventh day.

FOREIGN CORRESPONDENCE.

LETTER FROM PARIS.

(FROM OUR OWN CORRESPONDENT.)

Lateral Deviation of the Phalanges of the Index Fingers—The Action of Alcohol, Pepsin, and Alkalies on Digestion—Inoculability of Varicella.

A curious example of teratology was recently brought to the notice of the Academy of Medicine in a family consisting of a mother and three children, who were all four the subjects of the same malformation, viz.: lateral deviation of the phalanges of both index fingers. It would appear that such another example of this deformity has never been recorded, and of course some explanation was looked for. The deformity was evidently hereditary, as the subjects had not been injured, nor are they rickety. An explanation was proffered by the mother, who stated that her mother's mind was frequently impressed, during her pregnancy, with the form of a lobster, the claws of which offer some analogy with her deformed fingers and those of her children. Moreover, the mother had suffered great anxiety lest her offspring should be born with the same deformity; this idea preyed so much on her mind that she declared that if she had another child with the same deformity she would commit suicide.

M. Guérin considered this malformation to be purely articular, and believed that by dividing the lateral ligaments, which appeared to him to be the immediate cause of the deformity, the fingers could be straightened. M. Trélat, however, does not consider the deformity as being due to an articular lesion, but thinks that it is of an osseous nature, so that M. Guérin's remedy would be of no avail. Moreover, the deformity being manifestly hereditary, it would be useless to perform any operation in view of overcoming its transmissibility, as such deformities are of the nature observed in some of the lower animals, and which constitute fixed types among them, as is the case with dogs with crooked legs and tails. But when the deformity is accidental or artificial it is not transmissible.

After a communication made by M. Vigier at the Société de Thérapeutique on the action of alcohol, pepsine and alkalies on digestion, a debate took place, the conclusions of which may be summed up thus: 1. The ingestion of a small dose of alcohol increases the acidity of the gastric juice, and, as a consequence, may assist digestion in subjects whose gastric juice may be deficient of acidity, and becomes injurious in the opposite condition. 2. Care should be taken not to associate the bicarbonate of soda or of magnesia in any digestive powder containing pepsine. Dr. Dujardin-Beaumetz remarked that alkalies administered in strong doses (5 to 6 grammes) destroy the gastric juice, as was shown by M. Richet. Consequently, the physician should avoid prescribing mineral waters containing that quantity of the bicarbonate of soda, as in that case they can only produce bad results as far as the digestion is concerned.

At a recent meeting of the Societe Medicale des Hôpitaux, a debate took place on the inoculability or non-inoculability of varicella. Dr. Dumontpallier, after a long argument, came to the following conclusions: 1. Varicella is a specific malady distinct from variola and vaccina. 2. Varicella is a contagious malady, but not inoculable. A. B.

DOMESTIC CORRESPONDENCE.

LETTER FROM NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Progress in Bright's Disease—Electricity in Gynecology—Relations of Physiology to Medicine—The State Medical Association; Address in Physiology; Address in Pathology; Election of Officers; the Library; Treatment of Spondylitis.

The last meeting of the New York County Medical Association, which was held at the Murray Hill Hotel on the eve of the meeting of the State Association, was one of great interest. On this occasion Professor Austin Flint read one of those characteristically clear and comprehensive papers for which he is so noted, expressed in the terse and lucid diction of which he is so complete a master. His subject was "Elements of Prognosis in Bright's Disease," and, as might be supposed from his extended and ripe experience, it was one on which he could speak with authority. Having referred to the prevalent notion that an individual with Bright's disease was in the situation of a criminal condemned to death, and even in a worse predicament, from the fact that there was always a possibility of the latter securing a pardon or reprieve, he went on to speak of the circumstances which in many instances would be likely to modify the prognosis. Acute nephritis, he said, was not, as a rule, followed by the chronic form of the disease, nor characterized by any renal lesion; and the same was true of the subacute nephritis, such as often follows scarlatina, for instance. It was to be remembered, also, that an acute, diffuse tubular or desquamative nephritis might be met with as an intercurrent affection in the course of chronic Bright's disease. Under such circumstances a problem was presented which could not at once be definitely settled, since we could not be certain whether the grave symptoms noted were connected with the chronic trouble or whether they were significant of an acute attack of nephritis which would soon subside, and leave the patient in the same general condition as before. It was to be noted, however, that when an attack of the latter kind did occur, it was very apt to leave the patient with a tendency to recurrent trouble of similar character.

In chronic Bright's disease the affection might remain latent for a long time. In order that the prognosis might be a comparatively favorable one, when it had declared itself, it was necessary that the kidneys should not be damaged beyond a certain point, and that the important organs of the body other than the kidneys should be capable of satisfactorily performing their functions, while the laws of health in general were carefully observed. If these conditions were maintained, even though the kidneys were damaged to the extent of one-half, the patient might continue to live in a fair state of health. Chronic Bright's disease might exist, without discomfort to the patient, for years, and then at length the pathological process in the kidneys involve the organs to such an extent that they could no longer perform their functions; or, the accessory conditions might become sufficiently changed to give rise to serious trouble. The object of treatment, therefore, was to prevent further advance of the disease in the kidneys and to maintain favorable accessory conditions. In view of these facts, it could be readily seen how important it was to make an early diagnosis. The diagnosis made, the essential point was to see that a sufficient elimination of excrementitious products was carried out by the kidneys. It was very easy to determine whether the elimination was sufficient or not by simply ascertaining the quantity of urine passed in the twenty four hours, and testing the specific gravity with the urinometer. If it was found that there was renal adequacy, the indication for diuretics, sudorifics, and hydragogue cathartics was not present, and they would only do harm.

The diminution of excrementitious eliminations was not a necessary indication of danger from uræmia, because vicarious elimination might take place and tolerance thus be established. The prognosis of uræmic coma in chronic Bright's disease was naturally grave; but at the same time patients not infrequently recovered from it. It might possibly be due to an intercurrent attack of nephritis, or to the fact that tolerance was not established in the system. When there was pulmonary œdema and dyspnœa, there was a chance of the patient's recovery; but if there were present what is known as renal asthma (which is not due to any condition of the lungs whatever, but in all probability to the effect of a poison upon the nerve centres), it was to be regarded as of fatal import.

At the meeting of the Academy of Medicine on November 5, Dr. Paul F. Mundé read a practical paper on "Electricity as a Therapeutic Agent in Gynecology," the object of which, he said, was to popularize, so far as he was able, this method of treatment in the department of medicine in question. In the introductory part of it he referred to the following points as of importance to remember in this special application of electricity:

1. The galvanic current is far more generally useful than the faradic, which, as a rule, has a stimulating effect, while the galvanic acts as a sedative.

2. A mild, steady current will answer every purpose better than a powerful interrupted one. The faradic current, on the other hand, is useful in proportion to its strength.

3. Whenever the constant current causes pain, it is doing harm.

4. It is of little consequence which pole is placed within the body, provided care be taken that the current is not too strong. There is, however, one marked exception. In cases in which there is circumscribed pain, the positive pole is the one to be placed near the painful point.

5. It is safest to begin with a very weak current, and gradually increase its strength to any desired point.

6. When internal electrolization is to be employed, it is always best to introduce the internal pole upon closing the connection, on account of the sensitiveness of the external parts.

7. To be of any service, it is necessary that the treatment should be continued for a long time. As a rule it is quite useless to make applications less frequently than twice a week, and in many cases they should be made every other day. The treatment should last for from three to six months.

8. The results of faradization in chronic affections are less favorable than those of galvanism; but, while relief from pain and an amelioration of the general condition is very often obtained by this means, a complete cure is usually not to be looked for.

Dr. Mundé then spoke of a number of conditions in which he had employed electricity with considerable success. In speaking of its use in subinvolution, he said that when the case was of recent date and attended with menorrhagia, the faradic current was indicated; but afterwards the galvanic was the one to be used, although it was not advisable to introduce the electrode inside the uterus. In speaking of chronic inflammation of the ovaries and Fallopian tubes, he said the only *cure* was salpingo oophorec tomy In Tait's hands this had proved an operation comparatively free from risk, but no other operator had met with the same extraordinary success In addition to the danger under ordinary circumstances, however, there was a grave objection to subjecting young married women to an operation which deprives them of all hopes of offspring, especially as there was a possibility of pregnancy occurring The radical operation should be deferred, therefore, until all other measures had failed to give any relief, except in those cases in which imminent danger to the patient calls for its prompt performance He had seen very great benefit derived from palliative treatment, and the use of electricity was often of important service in supplementing other local measures

In speaking of the treatment of uterine fibroids by electrylosis, he referred to a case of Dr Fowler, of Brooklyn, which he saw in consultation, and which was afterwards reported cured by this method Dr Fowler was present at the Academy, and in the discussion which followed the reading of the paper he related the details of this case, and also reported two or three others which had been cured by the treatment

The conclusions which Dr Munde gave at the end of his paper were somewhat as follows

1 Electricity is a valuable agent in gynecology, and one which deserves to be much more frequently resorted to than is now the case

2 Its application in gynecological practice does not require special skill in the use of electricity

3 The remedy, if properly used, cannot do harm

4 It is of especial service in chronic conditions, and no pain is caused if the galvanic current is employed

5 The faradic current is indicated in deficient development and want of tone in the sexual organs

6 The galvanic current is to be used for the purpose of promoting absorption of adventitious products and allay pain

7 This method of treatment requires perseverance and the exercise of much patience

8 It is contra-indicated in acute and sub acute inflammatory conditions

9 The pathological conditions in which electricity proves useful are those in which other treatment often fails, or cannot be borne by the patient

10 In organic diseases a permanent cure or a restoration of the diseased organs to perfect health cannot be expected, but very marked relief, and that without danger, may often be afforded by means of electricity

At the recent meeting of the State Medical Association, the Address in Physiology, entitled "Some of the Relations of Physiology to the Practice of Medicine," was delivered by Prof A Flint, Jr A considerable portion of it was devoted to the bearing of the examination of the heart in health on that of the heart in disease, and the importance of an accurate knowledge of cardiac physiology in judging of the pathological condition of this organ When, he said, a student had fully mastered the physiology of the heart the recognition of abnormal sounds was easy, but without this thorough knowledge, the whole matter was a sealed book Indigestion and dyspepsia in their various forms constituted a class of affections which it was not easy to treat intelligently, and the more extensive the physician's knowledge of the process of digestion in all its details, the more successful would be his practice in this field Having referred to the benefit to medical science which physiology had conferred in the matter of localization in the encephalon and the discovery of the sugar making function of the liver, he went on to speak of the practical bearing of the knowledge of heat-production in the animal economy for which we were indebted to the physiologist Now it was the custom to feed fevers in order to supply the excessive demand for heat production, and thus effect the conservation of the vital forces This by no means increased the body temperature, but, on the other hand, actually reduced it Alcohol was therefore, of the highest possible advantage in appropriate cases, and one ounce of good French brandy represented a value of no less than thirty-four heat-units Under such circumstances it was undoubtedly consumed at once in the system, and hence might be given in large quantities without any injurious consequences, when the same amount given in health would pass to a large extent into the blood, and produce intoxication

He then spoke of the use of the hydrocarbons in phthisis, and of the abnormally low temperature met with in diabetes, after which he touched upon the subject of vaccination, the discovery of which Jenner had described as distinctly physiological The conclusion of the address was devoted to some consideration of the modern application to pathological investigation of the methods which had long been practised in physiological research, and which had led to the greatest discovery in pathology since that of vaccination, Koch's demonstration of the bacillus tuberculosis having opened up a field which was illimitable in extent Henceforth physiology and pathology would go hand in hand, and the ideal pathologist would be profoundly versed in physiology no less than the ideal physiologist would be profoundly versed in pathology

The Address in Pathology was delivered by Prof Edward G Janeway, who gave a *resume* of the latest advances in this department, and in speaking of the growing interest in the subject of micro organisms which was now manifested by the profession in this country, made a strong plea for the desirability of admitting scientific books and apparatus into the United States free of duty Most of the young men who were devoting themselves to pathological research here were poor, and he thought it disgraceful that it should be necessary to pay for a microscope in New York just what the same instrument would cost in Germany Was it not time, he asked, that some one was memorializing Congress on this subject?

The officers of the Association elected for the ensuing year were as follows President, Dr E M Moore, of the Fourth District, Vice-Presidents, Drs Wm Gillis, First District, H C Van Zandt, Second District, Frederick Hyde, Third District, and D Guernsey, Fifth District, Recording Secretary, Dr Caleb Green, of Homer, Cortland County, Corresponding and Statistical Secretary, Dr E D Ferguson, of Troy, Treasurer, Dr J H Hinton, of New York, New Members of the Council, Drs E M Lyon, 1st District, I H Abell, 2d District, T W Ross, 3d, S T Clark, 4th, and E S F Arnold, 5th District

Dr J W S Gouley, of the Committee on Library, reported that there were now in the library, which occupies a commodious chamber in the Carnegie Laboratory building, no less than 3,450 volumes and medical journals, and that it contained many rare and valuable works and complete sets of many important journals Much praise was due to Dr E F F Arnold for his self-denying labor in arranging and cataloguing the collection At the last session of the Association, the Corresponding Secretary announced that next year the work of the annual meeting would be so arranged as not to occupy more than three days, and that at least one evening of the session would be left entirely free

The meeting was brought to a successful close by a most attractive clinical lecture, at the Carnegie Laboratory, by Prof Lewis A Sayre, on the "Treatment of Spondylitis or Caries of the Spine by partial suspension and the plaster-of-Paris jacket, and the Treatment of Rotary Lateral Curvature by Gymnastics and partial Suspension, and the Plaster-of-Paris Corset" The reason for giving such a demonstration at this late date was, he said, that although the matter had been repeatedly brought to the attention of the profession, it was still evident that the practical application of the methods which he had so long inculcated was still very imperfectly understood by the great mass of practitioners These methods had received the cordial approval of the highest authorities in orthopædic surgery in every civilized nation in the world, and yet one could read in the twentieth annual report of a large public institution in the city of New York especially devoted, to a large extent, to the treatment of the class of deformities involved, the statement that "the use of extension for disease of the joints or the application of the plaster-of-Paris jacket was never allowed in the hospital" Though the individual opinion of the medical man in charge of this institution might not be of much consequence, it became a serious matter when this opinion became endorsed (as it was by their names appearing on the consulting staff of the hospital) by some of the most distinguished surgeons in the city or the country Again, he said, scarcely a day passed but what some patient was brought to him from a distance, who had been suffering the greatest agony from the defective mechanical devices which had been employed in the treatment of his deformity Yet these were almost invariably immediately relieved when a proper dressing was applied in the case, and great expense, time and trouble might have been saved if the patient's physician at home had only been taught how to successfully deal with such cases The methods of treatment referred to in the title were fully explained and practically demonstrated, both in Potts' disease and lateral curvature, the objections which had been raised to them in certain quarters were shown to be without weight, and a large number of striking cases were exhibited by way of illustration P B P

BOOK REVIEWS

A SYSTEM OF PRACTICAL MEDICINE, by American Authors Edited by WILLIAM PEPPER, M D, L L D, Assisted by LOUIS STARR, M D, etc Vol III Diseases of the Respiratory, Circulatory, and Hæmatopoietic Systems 8vo, pp 1032 Philadelphia Lea Brothers & Co 1885

The third volume of this great work, which attained a merited popularity immediately on the issue of the first volume, is in no way inferior to its predecessors It contains forty seven articles, by twenty-seven authors The volume opens with an article on "Laryngoscopy and Rhinoscopy," by Carl Seiler, M D, which occupies over twenty pages This is followed by Dr Harrison Allen's article on "Diseases of the Nasal Passages" Dr Hosmer A Johnson contributes the paper on "Neuroses of the Larynx," which is followed by two papers from the pen of Dr A Jacobi "Acute Catarrhal Laryngitis," and "Pseudo-Membranous Laryngitis" Dr Elsberg is the author of the articles on diseases of the larynx and trachea Dr Lefferts devotes nine pages to a consideration of tracheotomy Dr N S Davis writes of the "Diseases of the Bronchi," in twenty pages The two articles on "Bronchial Asthma" and "Hay Asthma" are by W H Geddings, M D, and the four following, on "Dilatation of the Bronchial Tubes," "Emphysema," "Collapse of the Lung," and "Congestion and Œdema of the Lungs," are by Dr Samuel C Chew Dr William Carson is the author of the four papers on "Hæmoptysis," "Pulmonary Apoplexy," "Abscess of the Lung," and "Gangrene of the Lung" The papers on "Croupous Pneumonia" and "Catarrhal Pneumonia" are respectively by Dr Alfred Loomis and the Editor, Dr Pepper Dr Beverly Robinson contributes the article on "Pulmonary Embolism," Dr Austin Flint, Sr, that on "Pulmonary Phthisis," Dr E T Bruen those on "Syphilitic Disease of the Lung," "Pneumonokoniosis," "Cancer of the Lungs," and "Pulmonary Hydatids" The paper on "Acute Miliary Tuberculosis" is by Dr John S Lynch, and that on "Diseases of the Pleura" by Dr Frank Donaldson

The Diseases of the Circulatory System are treated of in twelve articles, covering 260 pages, as follows "Diseases of the Substance of the Heart," by William Osler, M D, "Endocarditis and Cardiac Valvular Diseases," by Alfred L Loomis, M D, "Cyanosis and Congenital Anomalies of the Heart and Great Vessels," by Dr Morris Longstreth, "Cardiac Thrombosis," by Dr Beverly Robinson, "Neuroses of the Heart," by Dr Flint, "Diseases of the Pericardium," by Dr Da Costa, "The Operative Treatment of Pericardial Effusions," by Dr John B Roberts, "Diseases of the Aorta," by Dr G M Garland, "Diseases of the Coronary, Pulmonary, Superior Mesenteric, Inferior Mesenteric, and Hepatic Arteries, and of the Cœliac Axis," by Dr Elbridge G Cutler, "Diseases of the Veins," by Dr Andrew H Smith, and "Diseases of the Mediastinum," by Dr E T Bruen

The remainder of the volume is concerned with the Diseases of the Blood and of the Hæmatopoietic System, four articles, on "Diseases of the Blood and Blood-Glandular System," by Dr. Osler; "Diseases of the Spleen," by Dr. I. Edmondson Atkinson; "Diseases of the Thyroid Gland," by Dr. D. Hayes Agnew; and "Simple Lymphangitis," by Dr. S. C. Busey.

We must regret that an extended consideration of these papers is impossible in the space at our command. The contributors are so well known, however, that such consideration is by no means necessary. This "System Medicine by American Authors" is a monument to American Medicine.

Practical Therapeutics. A Compendium of Selected Formulæ and Practical Hints on Therapeutics. Interleaved. By Edward J. Bermingham, A.M., M.D., etc. 8vo, pp. 420. New York: J. R. Bermingham. 1885.

If books of this class could be kept out of the hands of those who use prescriptions as mathematicians use algebraic formulæ, they might be of considerable value. In this book, under the head "Neuralgia," we find seven formulæ. The reader is left to infer the causes of the neuralgia requiring any particular formula, and if a particular case be due to malarial influence he might experiment, successively with all and fail to relieve his patient. The only prescription for tetanus is a hypodermatic injection of ten drops of a solution of gr. ij of woorari to gtt. c of distilled water, every four or five hours. It would be interesting to know how many cases of tetanus have been cured by this treatment. For the treatment of insomnia Brown-Séquard's old bromide prescription is recommended—nothing else. For whooping-cough we recognize an even dozen old friends—no new ones. For the so called congestive chill we find two, the first valueless, the second containing too much atropia and too little morphia. We believe the tendency of such books as this to be mischievous. The intelligent practitioner who studies does not need them and others should not have them.

Lectures on the Diagnosis of Diseases of the Brain. By W. R. Gowers, M.D. 8 mo, pp. 253. Philadelphia: P. Blakiston, Son & Co. 1885.

These lectures were delivered at University College Hospital, London. They are most excellent. The author discusses briefly and closely the anatomy and physiology of the brain as far as they throw light on the diagnosis of cerebral diseases.

He then takes up the various symptoms of brain disease and discusses their cause and their value in forming a diagnosis. The last lectures in which he considers the "diagnosis of the nature of the lesion," "the pathological diagnosis of sudden lesions" and of "chronic lesions" are particularly interesting, because they are eminently practical and clear. The book is not a large one. It comprises eighteen lectures, covering less than 240 pages. It is well worth reading by students and general practitioners. The interest of the subject and the clearness and conciseness of the author recommend the book to all.

INTERNATIONAL CONGRESS.

SPECIAL ANNOUNCEMENT.

The Executive Committee of the Ninth International Medical Congress, to be held in the City of Washington, D. C., commencing on the first Monday in September, 1887, having accepted, under Rule 10 of the Committee on Preliminary Organization, the charge of the business of the Congress, hereby give notice to the members of the medical profession that they have been actively engaged upon, and have now nearly completed the arrangements for this meeting, and they anticipate the hearty cooperation of the profession everywhere in developing this great scientific and humanitarian assembly.

By order of the Executive Committee.

Henry H. Smith, M.D., Philadelphia,
Chairman of Executive Committee.
Nathan S. Davis, M.D., LL.D.,
Secretary-General of Ninth Int. Med. Congress.

Chicago, Nov. 24, 1885.

CAMDEN COUNTY MEDICAL SOCIETY.

At the semi annual meeting of the Camden County Medical Society, held November 10, 1885, the following resolutions were unanimously adopted:

Resolved, That this Society approves of the action of the American Medical Association in enlarging the Committee of Arrangements for the Ninth International Medical Congress, in 1887.

Resolved, That the Rules regulating the membership and business of the Congress adopted by the Committee of Arrangements at the meeting in New York, September 3d and 4th, and the transference of the future management of the Congress to an Executive Committee, composed of the President of the Congress, the Secretary General, the Treasurer, the Chairman of the Finance Committee, and the Presidents of Sections, be considered by this Society sufficient to silence criticism and enlist the sympathies and support of the profession throughout the United States.

Resolved, That the Secretary be instructed to forward copies of these resolutions to the County Medical Societies of New Jersey.

E. B. Woolston, M.D.,
President.
H. Genet Taylor, M.D.,
Secretary.

Camden, N. J., Nov. 10, 1885.

ASSOCIATION ITEMS.

INFORMATION OF IMPORTANCE TO ALL MEMBERS OF THE AMERICAN MEDICAL ASSOCIATION.

Membership.—Every one who attends an annual meeting of the Association as a delegate pays at that time five dollars, and thenceforward becomes a Permanent Member. He continues as such as long as he remains in good standing in the body from which he was originally sent as a delegate. As a Permanent Member, he must pay *Five Dollars Annually*, when notified by the Treasurer, whether he attends the meetings of the Association or not Payment of annual dues entitles him to receive the weekly Journal of the Association for one year

Members by Application are such as have not become Permanent Members in the manner above indicated, but apply to the Treasurer for membership, forwarding at the same time to him five dollars and the certificate of the President and Secretary of their State or local society, that they are in good standing in such society They pay five dollars annually thereafter, when notified by the Treasurer Members by application can join the Association at any time, and they receive regularly the weekly Journal

When Dues are Payable —The annual dues from Permanent Members are payable to the Treasurer at the time of the annual meeting of the Association, or immediately thereafter The payment entitles the member to receive the Journal for one year from the following July Payment for 1885, for example, entitles the member to the Journal from July, 1885, to June, 1886, inclusive

As some of the members have not yet forwarded to the Treasurer their dues for 1885, they are urgently requested to do so at an early day Having entered upon another year of membership, they are morally and legally responsible to the Association for the payment of their annual dues, having already received for three months of the new year—1885—the Journal of the Association

Subscriptions to the Journal, from those who are not members of the Association, should be forwarded to the office of publication, 65 Randolph Street, Chicago, and not to the Treasurer, but *all payments of annual dues must be forwarded to the Treasurer, Lock Box 1274, Philadelphia*

Deaths —When a member of the Association, who is in regular receipt of the Journal, dies, his family or other representatives are requested to inform the Treasurer at once of the fact

Payment of Dues for Previous Years —As a few members of the Association are still in arrears for payment of dues for 1883 and 1884, they are requested to forward at once to the Treasurer the amounts for which they are indebted to the Association

Transactions of the Association —These annual volumes, thirty three in number, to 1882 inclusive, may still be obtained, with few exceptions, from the Treasurer, at reduced prices The Index to these volumes will be forwarded on receipt of *One Dollar* An opportunity is thus afforded to complete sets of these valuable publications, or to obtain important papers and works which are daily becoming scarce

Richard J Dunglison, M D , *Treasurer*
Lock Box 1274, Philadelphia, Pa

MISCELLANEOUS

Vindication of the Secretary of the Michigan State Board of Health —Dr Arthur Hazlewood, chairman of the committee appointed on July 13, 1885, to investigate the office of the Board and the secretary, presented the written report of the committee at the recent meeting of the Board He and the other two members of the committee had examined the work of the office, the report of the Legislative committee on investigation, and he himself had made an unexpected visit to the office, and devoted some time to a thorough investigation The report showed how all expenses growing out of the Board were directly authorized by law and were reasonable, and expressed the confidence of the committee in the faithfulness of the secretary of the Board to the public health interests of the State The report was adopted The present year has been a particularly trying one for the office of the secretary of the Board Early in the year, at a time when extra work was needed, he was harrassed by false reports of investigations, and extraordinary demands upon the office have since been continuous, because of the fearful plagues of cholera in Europe, and small-pox in Canada, besides the increasing demands by local Boards of health and others throughout the State, for aid in efforts to control the preventable diseases most destructive in Michigan—diphtheria, scarlet fever, and typhoid fever

The next regular meeting of the Board will be on the second Tuesday in January, 1886

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY, FROM NOVEMBER 21, 1885 TO NOVEMBER 27 1885

Maj Anthony Heger, Surgeon, member of the Army Medical Examining Board now in session in New York City, is relieved from the additional duty of attending surgeon in that city, to take effect when Lt Col Jos R Smiths, Surgeon, shall have arrived in New York and entered upon that duty (S O 267, A G O , Nov 19, 1885)

Capt Walter Reed, Asst Surgeon, granted leave of absence for one month, with permission to apply for one month's extension, to take effect about Dec 1, 1885 (S O 115, Dept Platte, Nov 18, 1885)

Capt Arthur W Taylor, Asst Surgeon, granted leave of absence for one month, to take effect Dec 5, 1885 (S O 116, Dept Platte Nov 20, 1885)

First Lieut A R Chapin, Asst Surgeon, ordered for temporary duty at Ft Robinson, Neb S O 115, Dept Platte, Nov 18, 1885)

Lt Col James Simon, U S A (retired), died Nov 18, 1885, at Baltimore, Md

---

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING NOVEMBER 28 1885

R A Marmion, Surgeon, detached from Marine Barracks, Washington, D C , Dec 7, and wait orders

A M Moore, Surgeon, ordered to Marine Barracks, Washington D C , Dec 7, 1885

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE WEEK ENDED NOVEMBER 21 1885

Yemans, H W , Passed Asst Surgeon, Promoted to be Passed Asst Surgeon from Nov 1, 1885 Nov 14, 1885 Re assigned to duty at San Francisco, Cal Nov 16, 1885

McIntosh, W B , Asst Surgeon, appointed an Asst Surgeon, Nov 14, 1885 Assigned to duty at New Orleans, La Nov. 16, 1885

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N S DAVIS

PUBLISHED WEEKLY

Vol V CHICAGO, DECEMBER 12, 1885 No 24

ORIGINAL LECTURES

ANNUAL ADDRESS BEFORE THE AMERICAN PUBLIC HEALTH ASSOCIATION

Delivered Tuesday Evening, December 8, 1885,
In the City of Washington, D C,

BY THE PRESIDENT, JAMES E REEVES, M D,

OF WHEELING WEST VIRGINIA

GENTLEMEN AND FELLOWS

By your kindly suffrages I have been clothed temporarily with the highest honor that can be conferred by sanitary workers in the United States, and I confess that I have reached the duties and exercises of this our thirteenth annual meeting, and the culmination of my official privilege and distinction, with many misgivings as to my ability to meet the full measure of your reasonable expectations

A man, it is true, may possess thoughts, sentiments, opinions, attachments, he may be animated by an ardent desire to recommend these to the belief, or to the approbation of others, but in order to recommend sentiments and opinions with success, it is indispensable that he shall be able to command those easy and natural graces, those soft insinuating arts of tone, of gesture, of expression, which must either be the gratuitous endowment of nature or the result of a long course of assiduous application and practice

A speaker is laboring under many disadvantages who has to encounter, on the one hand, all the negative influences which result from the want of a free and frequent intercourse with the world, from the want of a familiar acquaintance with the current terms and popular phrases—those silken approaches and passages to the heart by which the convictions of man are created or confirmed, while, on the other hand, he must encounter all the positive influences which result from a retired and silent life

Besides all this, you will admit that our profoundest feelings are always the most difficult to communicate, yet, at this hour, and in the presence of this large assembly of wise and good men who have come up from the North, the South, the East and the West—representing not only hundreds of cities and large towns in this great country of ours, but also the Canadas—bringing with them, to grace this auspicious meeting at the Capital of the Nation, priceless knowledge how to increase the duration and value of human life and elevate humanity to the highest standard of physical, mental and moral grandeur—I invite your attention to subjects which have encouraged the most industrious energies of my life namely, the Public Health, and, to that end, the usefulness and welfare of the American Public Health Association whose good name and honor have been committed to our care, and I trust it will not be in vain if I bespeak your kind indulgence while I refer to matters which I have had so much at heart for the last fifteen years

The success of our meetings has always largely depended upon the well directed energies of the local committees of arrangements, and I am sure every member of the Association present will join me in heartily extending to Dr Smith Townshend, chairman, and his distinguished associates on the local committee, many, many thanks for the excellent and attractive programme they have so liberally provided for our reception and entertainment during the hours of recess It promises, verily assures, "a feast of reason and flow of soul," and again it will be said, and justly, that the medical profession and the city authorities of Washington never do things halfway

But our greetings and congratulations are not unmixed with sorrow, for they link us closely with "the valley of the shadow of death!'" A great statesman, Thomas A Hendricks, the Vice-President of the United States—a great and good man in every phase of his life—has been suddenly and unexpectedly cut down from among the living, and the knell of the sorrowful tidings, on the evening before Thanksgiving, cast a shadow over the hearthstones of millions of his countrymen And this is not all of the sadness which on this occasion possesses our hearts Since the last meeting, six master workmen in the vineyard of sanitary science, of beautiful private character and solid professional attainments, have been called off from labor to refreshment, and I am filled with grief almost too full for utterance when I think of the loss this Association has sustained by the death of J G Thomas, of Savannah, F W Hatch, of Sacramento, Thomas I Neal, of Dayton, John J Speed, of Louisville, Richard McSherry, of Baltimore, and Thad M Stevens, of Indianapolis These dear names will never be forgotten, for they are indissolubly connected with the history of sanitary progress in the United States Having made their best offerings at the shrine of the Public Health, they then "took their burden for a pillow, and laid down by the wayside to sleep that dreamless sleep" that wakes in a glorious immortality! Peace, peace to their precious ashes! The terrible question that irresistibly presents itself—who of us shall be called next? cannot be answered Let us, therefore, be admonished by the uncertainty of life, and "work while it is called to day, for the night cometh when no man can work "

Every such an assembly as this moves forward another day's journey the ark of the sanitary covenant, and humanity is bettered and made happier thereby A body so numerous as the one here assembled, which extends its action and influence over every part of the national domain, and is intimately connected with all the interests of society, cannot meet to deliberate on its usefulness, its interests, and its dignity, without making its impress upon the great heart of society The ruling character of the nineteenth century is the tendency to perfecting the physical, intellectual and moral welfare of man In every civilized and progressive country, sciences, arts, private and general industry, everything, in fact, tends towards this end, every one is carried forward by this general movement of advance, men as well as governments And what are the obligations of organized government to its citizens concerning the security of the public health? It would be easy to present examples from the history of republics which have arisen and passed away in distant lands and in different ages, in proof of the *epidemic agency of bad government*, and as a warning to the rulers of our own dear land where a new social experiment is in progress, the fairest, the freest, the most hopeful of any upon which the sun has diffused his life giving radiance And what are the elements of this beauty, this freedom, this bright anticipation? The answer is, our own hallowed institutions, and another and far more important question should immediately follow—how shall they be preserved?

Hygeia has been called the hand-maid of liberty, and in illustration of this position historic examples could be furnished pointing out the diminished population, decay of agriculture and commerce, and increase and fatality of disease which ensued on the downfall of republics Knowledge of changes of this nature which followed the destruction of the republics of Etruria and Magna Græcia by Rome, and then noting those manifested when the latter abandoned the republican for the imperial and despotic government, should be embraced in the history studies of every common-school boy and girl in the United States In subsequent times, what a contrast between the face of the country, as described by Muratori, when it had been overrun by the barbarians of the North, with that in a later age, when Christian civilization and liberty gave impetus to agriculture and commerce by imparting comparative security to the people who embarked in such industry and advancement The region now called Turkey in Europe, Greece and Asia Minor, exhibits silent but indubitable testimony in support of the same argument

In these days of political struggle and divers interests, in this country, we hear much of the various means for the advancement and protection of the agricultural, the manufacturing, the mercantile, and many others of less extent and importance, including so called *vested rights* Each of these interests is made the theme for animated discussion and sharp contest by opposing parties at the hustings, and thence become irrepressible questions for deliberation and decision by legislative assemblies, both state and national, and correctly so, for where the interests of the people are largely involved it is manifestly the duty of government to foster and protect them, and where they are opposed to each other, so to regulate them on principles of justice as shall conduce to the general welfare and happiness

But what question of a mere business interest can compare, either in importance or extent with the general and individual interest which every man has in the preservation of health and life? No matter what the labor, manual or intellectual, at which he is engaged, nor how productive, each and every mode of obtaining individual supplies and contributing to the social welfare of the community is, and must ever be, subordinate both individually and generally to the possession of health, the cash value of which is well recognized

Accepting the estimate made by statisticians of the financial value of the life of each able-bodied, industrious man at *sixteen hundred dollars*, and the average cash value of each man, woman, and adolescent above twelve years of age, at *one thousand dollars*, we then have some conception of the financial value of the life of each citizen, and the loss to the wealth of the community in unproductive labor from sickness, and by death, from preventable diseases It needs, therefore, no labored argument to prove that it should be the first duty of government, alike state and national, to protect the public health by legal statutes based upon the knowledge which sanitarians have gained by their self-sacrificing and humane industries, and sown broadcast, without price, among the people, and to see that all the members of society are benefited by it Indeed, every measure which relates to the improvement of the sanitary condition of the people generally, deserves the earnest attention of statesmen and the favor and hearty support of the national government Truly, sanitary science investigates the wants of humanity, and holds within its broad scope society in general Human vicissitudes meet it at all times and places, and everywhere they find it prepared to give succor equal to the existing emergency

Statistical researches have discovered two extremely important facts,—namely that the mean duration of human life is generally less than the three score years and ten commonly allotted as the term of man's existence, but that, on the other hand, communities have it in their power to diminish the causes which produce sickness and premature death, and it has been made evident that in consequence of the wise employment of that power, during the last century, the average duration of human life is slowly but progressively on the increase

A comparison of the liberal and wise provision made by some of the European powers for the promotion of sanitary science, and for enforcing its life-saving and wealth-producing precepts among all classes of the people, with the spasmodic, unreliable and inefficient legislation on the same subject in this rich and great country of ours, is, to say the least, not flattering to our national pride Yet, withal, it must be acknowledged that the national legislature is very liberal in many matters In the exercise of its supreme authority over land and sea, it is not only utilitarian, but really scientific and very sympathetic Unfortunately, however, protection of the citizen from preventable diseases which destroy many thousands of lives annually, the cash value of which amounts to millions of dollars, seems to be no part of the national care or responsibility

From the Agricultural Department, the Commissioner may send our distinguished Fellow, Dr Salmon, into any part of the United States to investigate an outbreak of disease among cattle, horses, sheep and swine, chickens, geese and ducks—if there should be no demurrer of *States Rights!*—and he may order an inquiry to be made concerning the blight of the crops—the *potato rot*, for example,—and the best method of housing, making healthy and productive swarms of honey bees, but what special, well organized national department have we which is charged with the humane duty of investigating the causes of diseases among men, women and children?

The national government has been thoughtful and liberal in establishing a Department of Education, and the Commissioner, General Eaton, has so wisely and admirably directed the interests committed to his care that, hand in hand with State Superintendents of the public school system, under his leadership the whole nation has been thoroughly awakened to the importance of the mental culture of the citizen, but, unfortunately, at the same time, greatly to the neglect of his physical culture, without attention to which there can be neither longevity and improvement of race, nor stability of government In other words, the *intellectual life*, not the *absolute life*, is the subject of national concern

There have also been provided a Department of Justice, a Civil Service, and a Secret Service, also many other agencies for the enforcement of law and order in society Even the fisheries, the fish-hatcheries, and the young seals of Alaska must needs have their agents, and are thus vouchsafed national protection, but the defenceless innocents, intended by nature to be the citizens of the next generation, may be killed by hundreds of thousands annually, from preventable diseases—scarlet fever, diphtheria, measles, etc —and the slaughter is wickedly charged to the will of Divine Providence!

The passage from infancy to childhood, and from childhood to adolescence, is a thousand times more dangerous than the approach to our harbors, but no central effort is made to save the children from death before they reach their fifth anniversary in the voyage of life During the present year an appropriation of over two millions of dollars ($2,368,102) was made for the establishment and maintenance of light houses, fog-signals, and other like means to warn and guide the mariner, and should shipwreck nevertheless overtake him, nearly another million ($926,900) has been furnished to aid in his escape from imminent peril by keeping up the service of the Life Saving Stations

In the same spirit, the Signal Corps was supplied with $862,580 for its support It is a valuable service, and well repays to the country the money expended upon it So long, however, as the object of this weather bureau embodied merely an effort to protect the citizen from disease, no money was voted to prosecute the needful inquiries, but as soon as it was suggested that warnings might be given of approaching storms, and *property*, both on land and sea, be thereby protected, money was appropriated by millions to aid and, as far as possible, perfect that service

To the same object may be ascribed the munificence of the government in giving millions of money to the Coast and Geodetic Surveys, and for the work of the engineers in enlarging the channels to our harbors and improving our interior water ways And thus it seems it is less the life than the property of the citizen that is the object of care, for we have seen where property is concerned the national legislature is always appreciative and liberal It is only when we come to ask for help to combat the preventable diseases constantly present among the people, and save thousands of valuable lives, that the minds of the national guardians become unappreciative and inattentive

The liberality in aid of Arctic relief expeditions, and for observations on the transit of Venus, is in striking contrast with the legislation on the subject of the public health In the budget of appropriations for the present year, $146,500 are given to the National Museum, $24,500 for the Howard University, $49,900 for the Freedman's Hospital and Asylum, $242,138 for the Hospital for the Insane, $72,000 for the Columbia Institute for the Deaf and Dumb, and as final aid to the World's Industrial and Cotton Exposition, $335,000, but how much for the protection of the health and lives of the people? It is true, temporary provision has been made to protect the country at large against the exotics, cholera and yellow fever, but it is the enemies we have always with us—scarlet-fever, typhoid fever, diphtheria, and other well known diseases—that produce the greatest destruction of human life and swell the total of the general distress in all parts of the country, and to combat which no national provision has been made.

Besides all this surveillance of various interests, and the supply of millions of money to support them, how many square miles of the national domain have been given away in railroad subsidies under the plea, no doubt, that "the end justifies the means?" Yet these acts of a liberal and progressive government constitute, probably, not the one hundredth part of the sum total of appropriations of money for purposes of far less importance than the interests of the public health

It may be said that protection from the common diseases of the country is a matter that belongs to the State, the municipality, but it belongs to the national government as well, at least, with equal reason for the establishment and maintenance of a central Bureau of Education, and a Department of Justice, that much more can be effected by national work and cooperation than by a series of independent and incoordinated local efforts

But I pray you not to believe that I think the Departments of Agriculture, Education, and Justice have received undue support and encouragement. Very far from such an opinion, so far, indeed, that I should be glad to see increased facilities given to the Agricultural Department for the study of the diseases of our domesticated and food-producing animals; also, greater latitude of authority and more money given to the Department of Education. My object in directing your attention to them is simply to show that the interests of the public health have not received a corresponding and sufficient share of national aid and encouragement.

The National Board of Health, which a few years ago was a live power and a strong arm in protecting the public health, has been so completely handicapped and crippled by inadequate appropriations of money for its support, that it has lately been incapable of performing the important service for which it was created, and, for that reason, has now but a nominal existence.

The Marine Hospital Service has been greatly favored, and having been thus encouraged, its authority has been industriously directed by the Supervising Surgeon, Dr. Hamilton. Indeed, he has done his work so well that there is danger, I think, of overloading him with extra official duties and responsibilities, such as the control of Coast Quarantine and Sanitary Inspections, with their complex entanglements, national and inter state—duties which were not embraced, or so delegated, "in the bond" establishing that service. But however active and efficient this valuable service may have become under the administration of its able director, Dr. Hamilton, it is not proportioned to meet the need of a permanent and well supported National Health Bureau, which humanity, the spirit of the age, and the progress of sanitary science in this country demand shall be established, either as an independent branch of the public service, or in connection with the Departments of Agriculture and Education. Without such national recognition and liberal support, it is impossible to bring sanitation in this country up to the level of its rapid advancement in Europe, and surely this great government of ours ought not be behind the sister governments in such good work.

We are, to day, at the very threshold of great possibilities in preventive medicine, and the central government should foster every effort for the success of the work in which sanitarians are so heartily engaged. To aid them in the study of contagious or infectious diseases, both among human beings and animals, and the blights upon our crops, a National Biological Laboratory should be provided, and no other place would be so well suited for the location of such a school of science as the new building now in process of erection for the Army Medical Museum and Library. With a thoroughly equipped National School of Biology, our scientists would then not have to visit the laboratories abroad—to Pasteur, in Paris, Klein, in London, and Koch, in Berlin,—neither should we see our own distinguished Sternberg quartered at the Johns Hopkins University, in Baltimore, for favorable facilities for the study of micro organisms in relation to diseases.

Biology owes its existence to microscopy, and under its searching penetration the whole field of the practice of medicine has been revolutionized and placed upon more rational foundation. Without the aid of microscopical investigations, sanitary science could have made less substantial progress, and mere conjecture would still be the answer to many of its important problems. Hence, to be a sanitarian in the full sense of the name, means familiarity with microscopical technology, and the ways by which the great advances of to day in science have been reached. Verily, what a speedy march to triumph in the inviting field of Preventive Medicine, if every board of health, every health officer, every practicing physician, were familiar with and employed the microscope in the study of the natural history of diseases? What is wanted is a unification of scientific sanitary work. A civilization based on science is ever progressive, and if our hopes for a glorious future are based on scientific research, they are truly well founded.

I hope you will take advantage of the opportunity afforded by this meeting, to urge upon Congress, now in session, the necessity of legislation in the interests of the public health and scientific sanitary work. Your presence in such large numbers—having come up hither from your far-off homes, quit for the time, your business of bread winning, and emptied your pockets of many hard earned dollars in payment of necessary expenses of the trip to this meeting—is sufficient proof of your earnest, self sacrificing labors in the vineyard of sanitary science, and will, I trust, influence the national legislature to establish on a broad and firm basis a health bureau which shall prove both a blessing and a pride to the whole country.

The pestilence—Asiatic cholera—which has swept off so many thousands of human lives in Europe during the last two years, threatens this country, and, like the awful sword suspended over the head of Damocles, may fall at any moment upon our people and turn the whole nation into mourning. We can scarcely hope to escape next year the presence and terrors of the merciless visitor whose line of march, wherever recorded, has ever been strewn with the dead bodies of its multitude of victims. Are our houses in order for the coming of the unwelcome guest? If not yet, further precious time should not be wasted. In all places the alarm should be repeated, and the command given—"be ye also ready!"

This meeting will be especially memorable because it begins a new series of volumes of the Transactions of the Association. The work done in the past, and recorded in the first series of the handsome volumes, speaks for itself. In none of the great libraries in this country can there be found a system of sanitary literature of greater variety and value than in these volumes. In order that their compass and value may not escape your attention, I have run over them to make and present the following condensed statement of their contents.

Volume I—563 pages—contains 48 papers by 44 authors.

Volume II—552 pages—43 papers by 39 authors.

Volume III—241 pages—29 papers by 29 authors.

Volume IV—396 pages—37 papers by 33 authors
Volume V—256 pages—20 papers by 19 authors
Volume VI—497—pages—36 papers by 36 authors
Volume VII—446 pages—33 papers by 30 authors
Volume VIII—359 pages—21 papers by 20 authors
Volume IX—453 pages—26 papers by 26 authors
Volume X—536 pages—46 papers by 43 authors, or a total of 339 different papers by 222 different authors, not including 12 Presidential addresses and many verbatim reports of interesting discussions of important questions

Several of the earlier volumes have already become so scarce in the office of the Association that the Treasurer, Dr Lindsley, has been lately a purchaser of these issues, as opportunity presented, in order to enable him to furnish complete sets Very soon, the first three volumes cannot be supplied at any price, and the question may now be raised, how shall the break of the set be remedied? The issue of a second edition would be next to impossible, and the only way, I think, to meet the situation would be the publication of a compendium, in one volume, of all the papers contained in the ten volumes I submit this question for your consideration, and should it receive favor, you will, I am sure, have no difficulty in finding "the right man in the right place" as editor of the proposed volume

Our energies have been greatly encouraged during the past year by the munificence of Capt Henry Lomb, a citizen of Rochester, New York, whose large heartedness of sympathy, and pure love of humanity, induced him to offer at the St Louis meeting, last year, the sum of $2,800 in prizes to be awarded at this meeting for the best essays on the four subjects selected for competitive study and report This noble example of Capt Lomb, it is to be hoped, will, from time to time, be followed by other persons of like liberality, and who believe with him that the cultivation of sanitary science is the way to the highest citizenship and a life of moral purity The presentation of the Lomb Prize Essays will, therefore, be a special feature of the proceedings of this meeting How to place them in the hands of the people, and carry out the wish of the generous donor, is a question of great importance and should receive attention, and be disposed of, at this meeting of the Association

Of not less importance to the Association and the general public will be the report of the Special Committee on Disinfectants, and if the character and value of the complete or final paper may be measured by the preliminary reports which have been made by individual members of that committee, and published in the *Medical News* (Philadelphia), it will prove one of the most valuable contributions ever made to the Transactions of the Association No such painstaking labor in this field of research was ever before undertaken in this country, and I predict for it not only the attention, but also the thanks of all English speaking sanitarians These papers will make the next volume of Transactions a book of unusual interest and value

And now a few words to my fair hearers who have honored us by their presence, and I am done The goddess Hygeia—your patron saint—will accept of her admirers and votaries no mere lip service, nothing less, indeed, than supreme devotion to her charms The cause of sanitary science presents a strong claim upon your sympathies and affections, because its saving influence brings to the lying in room, the nursery, the family circle, even down to extreme old age, the beauty of health and the fulfilment of domestic happiness

The elevation of woman, the just appreciation of female excellence, has ever continued to keep pace with the advance of literature and science Look at her condition among savage tribes, cultivating the field, or carrying home the bleeding victim of the chase, driven before her barbarian lord Look at her condition among the semi-barbarians or half-civilized nations, shut up in harems or seraglios, cut off from the enjoyment of society and denied the invigorating influences of pure air and God's own beautiful sunlight But behold, as science advances, she gradually acquires her true position in the scale of social life, the object of universal regard, the inimitable type of the artist's skill, the theme of the poet's happiest inspiration I will not ask you, Ladies, to approve, because I know you *will* approve and applaud the labors which are poured as votive offerings at the shrine of your loveliness

ORIGINAL ARTICLES.

NOTES ON A CASE OF DISEASE OF THE BRAIN[1]

BY H J B WRIGHT, M D,

OF OLNEY ILL

In presenting this case to the Association, I have selected only a few of the many changes of symptoms which it presented I shall purposely omit details, because they do not appear to be necessary to a proper understanding of the structural changes of the case The treatment did not seem to modify the disease, and therefore I shall not introduce it The refusal of near relatives to permit an autopsy in the case, which was obscure from first to last, leads me to assert that *grave robbery* is *sometimes* justifiable

Mr J R M came to my office in August, 1883, asking advice about a small ulcer which was situated on the anterior surface of the middle third of the left leg He was not quite sure, but thought it was caused by a slight blow At first it was a slight node, tender to the touch A few weeks afterwards the skin broke and ulceration commenced At the time of his visit to my office he weighed 180 lbs He asserted that his habits had always been good, he had never had venereal disease For several years his occupation had been buying and shipping horses For several years he has had slight rheumatic pains about his shoulders, and in 1875 had a slight facial paralysis, which rapidly passed away Otherwise his health had always been quite good

Further examinations showed that the ulcer on his leg would permit a probe to sink to the periosteum, and to be one half inch in diameter The skin about the ulcer was bluish and thickened, and the lower third of the leg was slightly œdematous His pulse was 85, but very feeble, and the heart's action was in keeping with the radial pulse His skin was soft and slightly sallow Tongue rather broad, and covered with a muddy coat Temperature 98 5° F He said that his appetite was good, and his bowels active enough, but he felt weak and disposed to sit or lie down I could find no evidence of syphilis

---

[1] Read before the Mississippi Valley Med Association Sept 9 1885

Three days after this, on Aug 31, he was taken with a chill, followed by fever, the temperature only rising to 101° F, but the pulse was 120 He was highly delirious, but would answer questions, and expressed himself as having pain in his head, though he would not locate it There was no disturbance of the stomach, but the bowels were torpid The edges of the ulcer were pouting, and the tissues around it engorged From the ulcer was flowing a thin cream colored, offensive pus During the following night the radial pulse grew less frequent and the temperature gradually abated On the following day he was only slightly delirious, complained of pain in his head and flashes of cold and heat in his back

During the fortnight following, the prominent symptoms were as follows Pulse always weak, easily compressed, and ranging in frequency from 70 to 140 During much of the time it was 90 The heart sounds during much of this period were barely audible, often indistinct The circulation in the extremities was good, the hands and feet being warm The skin was never dry and harsh, but was always sallow,—though never markedly jaundiced His tongue was broad and thick, and coated whitish or cream colored, but was never dry The breath was very offensive, often exceedingly so Stomach quiet, he was indifferent to food, but took nourishment enough The bowels were torpid, but acted under the influence of mild cathartics Abdomen soft, never distended by gas He voided about forty-eight ounces of urine in each twenty four hours, contained no sugar nor albumen, but was heavily loaded with urates and sometimes with phosphates

The condition of the nervous system was of very considerable interest His mind was almost always befogged during the first eight or ten days of this period During these eight or ten days he slept from twelve to eighteen hours each day, and his mind was much like that of a typhoid fever patient During the latter part of this period he often talked of driving over the country to look at horses and mules, of eating his meals at certain houses, and of doing just such things as a man engaged in his occupation would do His sentences were well connected, and he could follow an idea in a straightforward manner So consistent and natural were his vocal expressions, that a stranger would not have noticed his mental aberration But his statements were almost always untrue He would talk about having driven over the prairie to Mr A or B's house, and having bought a horse of a particular quality, the facts being he had not left his room for several days He recognized his friends, though he often forgot their names He was seldom angry, and he never positively refused to follow the directions of his physician, yet he often did so through the obtuseness of his mind Occasionally he had some difficulty in formulating his ideas, which seemed to be the result of his forgetting words He had, during this fortnight, persistent frontal headache of moderate severity, which was made worse by the use of quinine and alcoholic stimulants The brows were often contracted, his face presented a look of weariness, and at times he would stare During eighteen hours he had double vision, but there was no perceptible deviation of the eyes, and the ophthalmoscope showed nothing within the ball to account for this diplopia A slight paretic condition of the muscles of the extremities existed, but there was no well defined paralysis of any muscle The only indication of spasm which manifested itself was a slight hiccough, which returned at short intervals during two days

On Sept 21, we made a crucial incision through the ulcer, and found no disease of the bone, but burrowing pus

Sept 25—My notes read Slept well last night He now has ptosis of left lid, with equal contractions of both pupils, no facial paralysis, protrudes tongue slowly, but in a straight line He cannot express himself so as to be understood, his vocal organs being in a state of paresis Wound on leg granulating nicely

Sept 26—Is semi comatose, pupils contracted, skin covered with cold perspiration, heart beats seventy times a minute, respiration eleven a minute, and largely abdominal Temperature 101° F

Sept 27—Skin warm, heart's action stronger, respirations increased to eighteen and less labored, but it is with difficulty that he can be aroused

On the following day, the parts supplied by the left seventh nerve were all paralyzed, and the frontal headache continued He eats anything offered him, but has no choice, the sense of taste being much impaired Voided urine involuntarily to day

Sept 28—Wanders about his house, removes the covering from his bed, spits out his medicine, talking less coherently, and enunciates more distinctly Cutaneous sensibility unimpaired Sometimes holds his fingers in an awkward position for several minutes

Sept 30—Wanders about his neighborhood examining horses and trying to buy them, and this is done contrary to the earnest protest of his attendants The paralysis is growing less He protrudes tongue in a straight line

Oct 5—Paralysis all gone, pulse quite good, tongue clean, leg much improved Went to barbershop and behaved himself nicely while being shaved When asked the name of the day of the week he is uncertain When I laid my finger on his wrist to examine his pulse he said "I want you to examine me through sea water up and down," and then spoke several words indistinctly Five days after this the condition of his mind was improved, but he hiccoughed for several hours

Oct 20—Has some difficulty in swallowing, mind improving

Nov 12—Can express himself very well on any subject with which he is familiar, such as buying and shipping horses as connected with any particular place, but he is unable to transfer his train of thought correctly from one locality to another. He cannot tell whether he lives in Olney, Ill., or Washington, Ind. It is with great difficulty that he can read small type. There is now a paretic condition of the right side of the face, and upper and lower extremities, and the tendon reflex is more prominent in the right leg.

One month after the above entry, my notes say that his mind is active, but his memory is very poor. For a pain in sacrum I gave him a hypodermatic injection of morphia, which he had entirely forgot ten minutes after. This sacral pain extends around the lower portion of the abdomen, and he has to micturate much too often."

Dec. 27.—Tongue deflects to right. Left corner of mouth slightly drawn up. He talks freely and walks about the neighborhood at his leisure, but the muscles of locomotion are weak.

During the first six months of 1884 his condition was uneventful. On July 30 he slept heavily, and at 9 A.M. was in a stupor so profound that he could not be completely aroused. Early in the day there was marked facial paralysis again, but this passed away against 4 P.M., at which time I saw him. Pulse sixty-four and very feeble, skin cool, face flushed, nothing abnormal about eyes. Protrudes tongue in straight line. His power to enunciate distinctly is only slightly impaired, but he cannot utter a single complete simple sentence. Generally he only speaks the first word and then is unable to recall the other words with which to express himself. It is with great difficulty that he rises from his couch.

Aug. 10—or ten days after the above notes, he came to my office, walking two squares, and I found that his ability to express himself by means of vocal language had returned, and his mind tolerably active. He speaks slowly but distinctly, and repeats what he said a few minutes before, evidently having forgotten. Swings his feet outwards, and strikes his heels against the floor with a thud. He complains of great weakness in his knees, and is inclined to fall backwards.

One month after this the feebleness of his lower extremities had increased so that he could then walk only a few feet, and when the decubitus was dorsal he could not lift his feet off his bed. The facial muscles were not paralyzed, and the pupils were normal. He could read a newspaper about half a minute, when the letters became blurred and his vision completely failed. He rarely expressed a wish, his sensibilities being all obtunded.

Sept. 26, 1884.—He is unable to rise from his bed, and paralysis of his bladder demands the catheter.

Sept. 30.—A little more than one year from the apparent commencement of the disease, he died from failure of the heart. I regret that I was unable to obtain an autopsy.

In reviewing this case, I will call attention to a few points which comprehend the important features of its symptoms and pathology.

1. The family and personal history were good.
2. No evidence of syphilis could be found, and he was the father of several healthy children.
3. He had a painful ulcer on his left leg, which showed no disposition to heal until surgical interference was resorted to.
4. A progressive enfeeblement commenced about the time the ulcer reached an active point in its destructive process.
5. He was then taken with a chill which soon gave way to a temperature of 101° F. After a few hours the temperature returned to normal. During the remainder of his illness his temperature was generally normal, but it was sometimes subnormal and at other times hypernormal.
6. During all his sickness his radial pulse indicated low arterial tension, and the heart's action was very feeble, the sounds being at times inaudible. Though the heart's action was weak, it was not rapid, except when the body-heat was much above normal. The circulation of the blood in the periphery and extremities was generally well maintained. A sudden change from a recumbent to a sitting posture did not increase the action of the heart more than in health. Excepting a few times, the heart's action was regular.
7. The first disturbance of his mind consisted of a busy delirium, which soon gave way to a stupor from which he could not be easily aroused. After a few days his mind regains its wonted activity, but he is unable to limit his mental activity to the real, and deals with the ideal. His accustomed labors are gone over again as he converses with his associates. Memory is seriously impaired, and his respect for truth is apparently entirely lost. One month after his first marked mental disturbance, he is again quite suddenly semi comatose, and has contracted pupils, very weak pulse, and very slow respiration. From this he gradually emerges again, and reaches a degree of mental soundness which enables him to transact considerable business. By this time he could express himself very well on any subject that he is familiar with, for example buying and shipping horses, as connected with any particular place, but he is unable to transfer his train of thought correctly from one locality to another. Before his death he is twice more semi comatose, each time regaining only in part his previous condition. Before death his memory was nil.

8th.—The last and, from the pathologist's standpoint, the most interesting features of the case are the oscillations of the motor nervous system. It is true that from the first there was a paresis of the extremities, which deepened, and so far as the lower extremities were concerned, finally became a paralysis, but not so with other voluntary muscles. One morning he awakens with marked paralysis of the levatores palpebrarum, and paresis of one part of the larynx, implying injury to the left motor oculi, and probably one or both of the pneumogastric nerves. Three days after this he has well marked paralysis of the right side of face. On this day we find then that the *left* motor oculi, the right facial and a pneumogastric nerve are implicated. Thirty days after this the muscles supplied by these nerves have regained to a great degree their irritability, and difficult deglutition appears to disappear after a few days. Two months after this first disappearance of the facial paralysis it appears again, to fade away again to a paretic condition, which is once more deepened by a marked but fleeting paralysis

Three months after this case came under my care he visited, at my suggestion, a very able physician in Cincinnati, Ohio The following extracts from his letter indicate his idea of the case, and explain themselves

Dear Doctor —Mr M has been under my observation since he arrived in this city, until his departure on last evening to pass again under your care The existence of amnesic aphasia is plain enough, but only a variety of that disease It seems to be clear that the Rolandic areas are involved in the left hemisphere, and the posterior aspect of the left third frontal convolution I am inclined to think that the branches of the left middle cerebral artery have become so affected by the *debris* (?) transported from the ulcerous region of the left tibia as to interfere seriously with the blood supply to the cerebral regions referred to, and greatly to impair their function, more especially the supply to the third frontal convolution I think no positive softening has occurred, but rather adventitious deposits in the affected region Respectfully, ——————

About the same date I sent an exact copy of the notes furnished to this physician to an equally prominent neurologist of Chicago, and received the following reply

Dear Doctor —I have read the full and, on the whole, satisfactory history of the case you write about I have no doubt—reasonable doubt—but that you have to deal in your case with a tumor in the left half of the brain, in all probability with consecutive pachy meningitis, localized inflammation of the brain, regional congestions tending to capillary stasis etc Besides tumor, about the only other thing likely to be present is brain abscess Most respectfully, ——————

Similar notes were sent to a very learned physician in Philadelphia The following is an extract from his reply

I have no doubt that the case you describe so carefully is one of syphiloma of the brain No other theory will account for the symptoms It may and will be said that he has not and could not have had the disease, but this form appears after so many years of apparent cure that no mere denial based on the recent experiences of the individual will suffice

Very truly yours, ——————

TREATMENT OF NEOPLASMS OF THE NASO-PHARYNGEAL CAVITY[1]

BY J G CARPENTER, M D,

OF STANFORD KY

A consideration of the treatment of neoplasms of the naso pharyngeal cavity may be appropriately preceded by a report of the following case

D S C, aged 42 years, of good family history, has been afflicted with naso-pharyngeal and aural catarrh since 1879 The subjective symptoms, hawking, tickling in the throat, sensation of a foreign body in the larynx, great inclination to swallow, asthenopia, nasal obstruction, loss of senses of taste, hearing and smell, were well marked Nausea was present all the time to a slight degree, and culminated in vomiting every morning during the effort to remove the tenaceous muco pus There were profound lethargy and dull headache in the frontal region, impairment of the will, intellect and memory, great irritability, involuntarily fell asleep when reading or making a calculation The expression was dull, indifferent and semi-idiotic Suspicion was such a prominent symptom that he doubted the sincerity of his best friends

Objective symptoms were the following The lining of the naso-pharyngeal cavities was very red, highly congested, infiltrated and tumefied, and had two to five blood-vessels to a circle of a half square inch The vault and posterior nares were covered with a dirty yellow tenaceous muco-pus, the Eustachian orifices were greatly hyperæmic, infiltrated and constricted The right half of the vault and posterior naris were occupied by a fibroma, which projected into the right naris, completely obstructing it The membranæ tympaniorum were semi opaque, retracted, and' the external auditory canals dry and desquamative *Hearing in each ear is* $\frac{2}{48}$

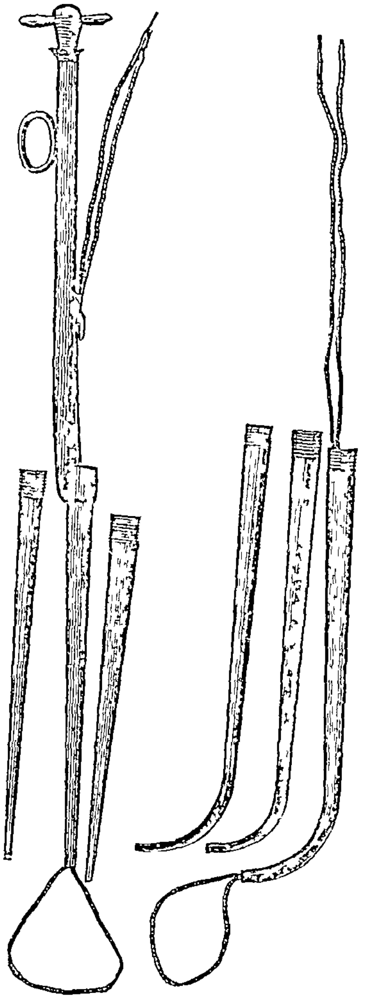
The naso pharyngeal cavities were cleansed with one teaspoonful each of Listerine, glycerine, and chloride of sodium in a pint of warm water, snuffed from a sponge through the nose, with the head in the three positions advised by Rumbold, and followed every day by local applications of oil of eucalyptus, gtts vi, vaseline, ℥i, crude carbolic acid, gr ss, mixed, melted and sprayed with spray producers Nos 1–5, inclusive, for ten days

The catarrhal affection having very materially subsided, an effort was made to remove the fibroid *per orem* with Jarvis's curved snare from the posterior naris The wire was adjusted with some difficulty on account of the growth projecting into the right posterior naris A tape was passed through the right nostril into the mouth, passed around the wire and back into the nostril and out at the anterior naris The wire was thus easily applied by pulling it into the posterior naris with the tape, and pushing it up and back with snare The reflex spasm of the palate was so great that it had to be tied Every time the tumor was constricted by the wire and considerable traction produced by the screw-power the wire would break The snare was discarded and an effort made to remove the fibroid with post nasal forceps, but the attachment was so powerful that it was impossible to do so Further operative procedures were abandoned, and the naso pharyngeal cavities sprayed with oil of eucalyptus and vaseline mixture every day for a week, every other day for two weeks, twice a week for three weeks, and once a week for four weeks, the patient using the Listerine mixture every time before receiving the local treatment, to thoroughly cleanse the parts The fibroid having lost its vitality from the great strangulation of the snare wire and compression of forceps, disintegrated and sloughed without further operative treatment In addition to the local treatment tonics and restoratives were prescribed freely

The use of forceps for the removal of growths of the upper air passages is a procedure in which the mucous membrane, the periosteum, and even the bone are often torn away, the pain and hæmorrhage are often quite severe, and the operator, groping his way and feeling for the tumor, often seizes one of the turbinated bones for the polyp The snare is the most rational, the easiest, most pleasant and least painful of all means for detaching these growths By applying cocaine before using the wire loop, the operation can be performed without pain and irritation to the Schneiderian membrane, and without reflex spasm of the soft palate, or muscles of deglutition, hæmorrhage and destruction of sound tissue are avoided It takes one or more hours to remove a neoplasm, especially if it be a fibroid, with the snare

---

[1] Read before the American Rhinological Association Oct 6 1885



The repeated failure of Jarvis's snare in the writer's hands has caused him to improvise an instrument which has a wide range of application, is much more powerful, and has a different screw power that works easily with the thumb and index finger The screw-power is at the distal end of the snare The instrument is composed of a body and screw, and place for fastening the ends of wire, the wire loop, three straight and three curved tubes of different sizes The calibres of the tubes are traversed by wires of corresponding sizes, if the smallest wire should break a larger tube and wire may be used The straight tubes are used for removing tumors through the anterior nares, or even the uterus, vagina or rectum, the curved ones are for application to, and removal of, tumors from the naso pharyngeal cavity The writer is convinced that two or more strands of copper wire, twisted, are more powerful and remove the tumor more rapidly than the single steel piano wire of Jarvis's snare The wire should always be annealed before using it

Injections of carbolic acid solution, gr x–xxx to ℥i of water into an anterior nasal polypus or hypertrophied turbinated bones has often produced a complete removal of the former and subsidence of the latter, it takes from five to twenty-five injections once or twice a week to accomplish the desired result, and they are quite painful when made to the turbinated bones Mucous polypi and sessile growths of the anterior or posterior end of the inferior turbinated bones have yielded to mild astringent applications with the spray, *pari passu* as the catarrhal inflammation subsided

Polypi have been successfully removed by inserting one index finger into the anterior naris, the other behind the palate into the posterior naris, and thus pinching the pedicle off between the fingers Dr M Rue successfully removed the polypi by passing a cat gut ligature through the affected nostril into the mouth, then tying a soft dry sponge, the bulk of which, when compressed, would just pass through the narrowest part of the nostril, and then making forcible traction, thus removing any growth in front of the sponge

On account of the great elasticity of the soft palate, an antero posterior incision made in the median line, and traction through the opening, has its advocates, for the removal of large neoplasms After the growth is removed, staphylorrhaphy is performed. Hæmorrhage is the great disadvantage of this operation The galvano cautery has proved a very successful means of removing tumors in the upper air passages, as well as in other regions The pain and hæmorrhage are slight, the wire is carried around the growth and tightened, the connection is made with the battery, and the neoplasm burned off and removed The disadvantages of the galvano cautery are troublesome and expensive apparatus, growth often removed by piece-meal, and the process tedious and dreadful to the patient Dr Thudicum removed one tumor in fifty-three pieces, and in another case thirty three introductions were necessary

Langenbeck's operation is performed by making an incision from the inner angle of eye to the angle of mouth, dissecting the flap, and turning the nose to opposite side, thus increasing the space very materially Rouges' operation consists in making an incision from angle of the mouth and jaw upwards, and turning the cheek, nose and lip upon the forehead, and is a more extensive operation than Langenbeck's

Dr Lincoln, of New York, has had great success in using electrolysis by inserting the electrolytic needle into the neoplasm and producing a great reduction in size before the final operation for removal is done.

Sessile growths of the inferior tubinated bones may be removed by passing the wire loop around the posterior end by introducing the index finger into the posterior nares, and holding the wire on the growth while traction is made, and from the anterior nares by passing the wire over the growth, then transfixing it with a needle, and completing the operation.

Wookes recommends the forceps and plow in addition to the wire loop and needle and galvano caustic procedures.

Of all the operations for removing foreign growths from the upper air-passages, the ligature and double canula, and tightening the ligature from day to day, has the fewest advocates. It has the disadvantages of too much time consumed, discomfort to patient and horrible stench, and possible erysipelas and septicæmia.

Hæmorrhage is the great complication to be anticipated in removing fibromata. Cartilaginous and osseous growths may be removed by combining one or more of the above methods with such cutting appliances as saws, especially the revolving saw, and dental engine and drill. Resection of the upper jaw and replacing the part excised after the neoplasm is extracted, has its advocates as a *dernier ressort* to give more space for manipulation of tumor.

If a catarrhal inflammation attends the neoplasm, it should be properly treated, and the lining membrane placed in as healthy a state as possible before the operation; after the operation the naso pharyngeal cavities should be thoroughly cleansed with Listerine, glycerine and common salt mixture, and sprayed with mild, soothing astringent applications.

A CASE OF PHTHISIS WITH NUMEROUS BACILLI; COMPLETE ARREST OF THE DISEASE[1]

BY VINCENT Y. BOWDITCH, M.D.,

OF BOSTON, MASS.

Owing to the universal discussions which have been carried on in the medical world during the past year or two over the bacillus tuberculosis, the following case will, I think, be of interest, and if I present it to you rather in detail, I trust I may be pardoned, as it is for the purpose of seeing, if possible, what deductions can be drawn from it as to the significance of bacilli in the sputa of phthisical patients.

On June 20, 1883, I was called to see Miss H., a young lady aged 23, who gave the following history. Always remarkably strong and well, with the exception of a severe "congestion of the lungs of short duration when a baby." All of the bodily functions had been perfectly regular. The father, mother and the whole family were healthy people, without history of lung trouble in any branch. During the previous winter, the patient had interested herself greatly in photography, and had had one or two severe headaches, which increased in number and severity during the few weeks previous to my visit, and four or five weeks before, a slight hacking cough had begun, with greenish sputa. A rapid and marked loss of appetite, flesh and strength, together with feverishness, occasional night sweats, and increasing languor, after a visit to the seashore, so alarmed her mother that she felt a physician must be summoned immediately.

The patient was tall, of fine physique, the face somewhat pale, with a languid expression, the whole appearance being that of one accustomed to robust health, but temporarily indisposed. The voice was slightly hoarse. Upon physical examination, I found very marked dulness at the right apex above and below the clavicle, extending down to about the second intercostal space, and auscultation revealed very numerous loud, moist mucous râles, with prolonged expiratory murmur and decided "nearness of voice" in the region of dulness. Once or twice there was a suspicion of a "squeak" in the left apex. Elsewhere in the chest the physical signs were normal. The temperature was 100.2°, and the pulse 94.

Nourishment was ordered in the form of milk, to be given every two hours with Murdock's Food, and the patient was told to take Fellows' Syrup of the Hypophosphites, to paint over the region of dulness with tincture of iodine for several weeks, and to inhale once or twice a day a mixture of equal parts of tincture of opium, tincture of hyoscyamus and tincture of conium, the inhaler to be placed in a bowl of hot water.

On June 26, a consultation was held with Dr. H. I. Bowditch, and, upon examination, dulness, moist râles and bronchial breathing were noticed above and below the right clavicle, the râles being not quite so numerous as before. Temperature and pulse were normal. The patient was able to eat more, felt stronger and coughed less. The sputa were nummulated, greenish, and once or twice during the week had had a reddish tinge.

June 27. Sputa examined by Dr. W. W. Gannett, who reported that *the specimen contained numerous bacilli.*

June 30. Examination showed that the signs were certainly less marked but still distinct in the right apex, and the patient reported "no headache for two weeks." I prescribed, as a residence for the summer, Bethlehem, N. H., having refused to allow the family to go to the seashore, as proposed, and ordered the same medicines to be continued, with instructions that the patient should be in the open air every moment possible during the day, to be back by sunset at the hotel and never to remain outside the house after eight P. M., to take no long fatiguing excursions, and to eat all the nourishing food possible.

One month later, the mother of the patient wrote that her daughter's health had steadily improved from the first day of their arrival, and that she was beginning to take active exercise without the slightest fatigue. The patient, however, complained of a slight pain in the right side near the axilla. The cough had nearly disappeared; the menses had appeared within a day or two of the normal time, and improvement was so marked that all medication except painting the chest with iodine had been discontinued. I recommended a simple liniment to be rubbed on the chest over the seat of pain, and ordered the hypophosphites to be continued.

Three months later the mother again wrote enthusiastically of her daughter's gain. The patient had gained seven pounds in six weeks, played lawn tennis and took long walks without the slightest fatigue, slept all night like a child, and only had a slight "hemming" through the day. The record of the morning and evening temperature for five days at this time showed it to be normal, the pain in the chest had ceased and the patient looked "the picture of health"

---

[1] Read before the Section for Clinical Medicine, Pathology and Hygiene of the Suffolk District Medical Society, November 11, 1885.

In spite of the continued favorable reports, I felt skeptical as to the permanent restoration of health, and felt it to be probably but a temporary gain, to be followed soon by a renewal of the symptoms

About the middle of September, after a stay of two and a half months in Bethlehem, the family returned to Boston for a few days, en route for Texas, a part of the country I should not have selected as a winter resort, but which for various urgent reasons seemed the best place for the patient, whom I would not allow to remain in Boston for the winter

Upon examination, the general appearance was of excellent health, the patient being much stouter than in the early summer

A slight huskiness of the voice was noticeable, however, and an occasional clearing of the throat and slight cough after laughing were enough to strengthen my suspicions that there was still trouble left No sputa could be obtained at any time for examination The patient complained of occasional slight "stitches" in the chest, but no localized pain, and felt perfectly well

Physical examination showed dulness still present in the right apex Râles of a finer, drier quality, and much fewer in number than before, were heard in this region and the coarser râles had disappeared The expiratory murmur was marked, with slight bronchophony Respiration in the left apex normal Pulse 68, temperature 97 8° During the stay of a few days in Boston, as the patient's appetite failed and the slight cough increased, I hastened her departure as much as possible

For the next eight months, which were spent in various parts of Texas, I continued to receive enthusiastic accounts of the daughter's health from both parents, with one exception, when, having been subjected late in the winter to very heavy fogs in Galveston, the patient complained of a great sense of oppression in the chest, and of general debility, symptoms which speedily disappeared upon her going to San Antonio, where she remained until the following spring, the early part of the winter having been spent in the interior of the State, where, in spite of great household discomforts and exposure to the blasts of the so called "Northers," icy winds, which suddenly rush over that region in winter, she remained perfectly well, while other members of her family suffered with severe colds and coughs A slight clearing of the throat was occasionally noticed, but so slight that her mother remarked that had it not been for the previous summer's experience, a second thought would never have been given it, and was no more than had been present at times ever since childhood, and the patient weighed more than ever in her life before, namely, 155 pounds

On May 19, 1884, nearly one year after my first examination, the patient returned by sea to New York and thence to Boston, where she arrived with a heavy cold taken in New York during a violent rain storm Headache, with a return of slight pain occasionally noticed in the upper right chest, were also present, but in a few days all these symptoms disappeared

Examination showed upon inspection a slight hollow under the right clavicle Dulness noticed as before The respiratory murmur was less pure than on the left, but it was almost impossible to get any definite râle, even after cough, but occasionally an indistinct "click" could be heard Voice rather nearer than on left Temperature 99°

The patient remained in Boston until the last of June and then went, at my recommendation, to spend the summer near Lake Champlain and in the Adirondack region, a spot which had seemed to me peculiarly suited for such a case Here she remained by my advice, in spite of the adverse criticism of many of her friends, who insisted upon her absolute health, until the following spring, and then returned to Boston the picture of robust health, and declaring that, with the exception of an occasional neuralgic headache, she felt absolutely well, that the pains in the chest had disappeared, that long walks and rough climbing caused no shortness of breath but merely a healthy fatigue, in short, giving a description of as perfect health as one could desire All medication had been given up several months before

Examination of the chest showed a return to its normal color, the hollow under the right clavicle having disappeared The percussion note revealed little difference between the two sides, although at the upper right there was still very slight dulness and a feeling of inelasticity was marked The respiratory murmur in this region was rather harsh and after a slight cough under the right clavicle a faint "crackle" was occasionally heard, but the moist coarse râles heard in the examination of two years before had entirely disappeared, while the "nearness of voice" at the upper right was not quite so marked as before

Considering it wiser for the moral effect upon the patient that she should be told, at the end of my examination, of her recovery, and thus be relieved from the depressing effect of a constant watch upon her symptoms, I bade her, although recognizing in my own mind the possibility of a renewal of the morbid process in the future, to forget that she had ever needed a physician, merely cautioning her against foolishly exposing herself in any way in the future Up to the present time I have had no reason to think my advice unwise, and in my occasional interviews with the patient during the past few months, I have watched in vain for any symptom, apart from those to be noticed only in a physical examination, which to the medical eye and ear would suggest anything other than a condition of perfect health

We have, then, the history of a young lady, previously strong and well, seized with sudden and alarming symptoms of acute tubercular disease in the apex of one lung, followed in a few months by a cessation or "drying up," as it were of the morbid process and consequent shrinking of the lung substance in the affected region, and, so far as outward appearances are concerned, a complete renewal of the patient's health

What have we to learn from this case?

Two facts of marked importance, it seems to me *first*, that the rapidity of the fatal result in phthisical cases is not *always*, as thought by some, in direct ratio to the number of bacilli found in the sputa, (that is, the greater the number of bacilli, the more rapid the course of the disease), and *second*, that the presence of even numerous bacilli in phthisical sputa is not inconsistent with complete arrest of the morbid process and subsequent renewal of the patient's health

One case like the above, as proof of these assertions, is, of course, of great value to us in making our prognosis, in similar instances when, following the teachings of those whose opinions we respect, we are led to give the gravest prognosis and feel no hope for the recovery of the patient whose sputa reveal the presence of the bacillus tuberculosis

In an article entitled "The Pathological and Practical Relations of the Doctrine of the Bacillus Tuberculosis," printed in the *Philadelphia Medical News* of January 19, 1884, Prof Austin Flint writes "So far as my experience goes, an abundance of bacilli in the sputa of phthisical patients is evidence of active progress of the disease and vice versa," and in a conversation with him last spring, he stated that although unable to say absolutely that he had ever so expressed himself in writing, his decided impression was that the presence of bacilli in large quantities in phthisical sputa was a sign of a rapidly fatal termination of the disease, an opinion which, coming from such a source, we are bound to respect, and which make the case in question of still greater importance

I have used the term "complete arrest of the disease," rather than the word "recovery," in this case to satisfy those who with justice claim that we have no right to use the latter term unless the part affected shall have resumed its normal condition The use of the former term, however, is justifiable inasmuch as it does not preclude the possibility of a renewal of the trouble at some future time

MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS

ROASTED COFFEE AS AN ANTISEPTIC—DR OPPLER highly recommends roasted coffee as a dressing for wounds, and his results from its use are very satisfactory The effect is attributed to the presence of vegetable charcoal and to the aromatic empyreumatic compounds formed during the roasting process Oppler states also that it destroys the odor of iodoform, 20 to 50 per cent being effectual for this purpose He gives the following formula for dressings

Iodoform	50 parts
Finely powdered roasted coffee	25 "

Triturate with a few drops of ether and dry

Iodoform	grm	1 00
Paraffine	"	10 00
Powdered roasted coffee	"	30

It is also excellent for disguising the taste of castor oil

Castor oil		2 parts
Powdered sugar		
Powdered roasted coffee	aa	1 part

Nouveaux Remedes, Oct 15, 1885

CHLORIDE OF METHYL IN NEURALGIA—DR C VINAY, in the *Lyon Medical*, July 12, 1885, writes very encouragingly of the benefits of this drug in neuralgia It was introduced into practice by M Debove only last August, and is very simple in its mode of application, rendered liquid artificially, it is placed in a syphon bottle and its discharge is regulated by a key valve, which allows it to be thrown out as a jet and vaporize, which action results in a refrigeration of —23° C (—9 4° F) This jet, thrown against the skin, results in a rapid congelation, a segment of the skin is instantly transformed into a whitish congealed space, which gives to the finger a sensation of woody resistance In time, ten seconds is enough for the forearm, in sciatic neuralgias, where the painful surfaces have considerable area, thirty to thirty-five seconds suffice for it to act over the whole of the territory of distribution of the affected nerve, from the nates to the dorsum of the foot The sensation to the patient is a severe one, and, so say those who have felt both, more painful than the application of fire In every case the local congelation disappears quickly, the white surface gives place to a very transitory anæmia, with a goose-flesh appearance and general anæsthesia, then appears a diffuse redness which persists for quite a time, and is accompanied with hyperæsthesia The painful sensation gradually disappears, and in a few hours is replaced by a sensation of heat which is very superficial, as it results from the congestion of cutaneous vessels When all pain has disappeared there is, in patients affected with sciatica, a certain degree of paresis of the part operated on, that is, a sensation of unaccustomed heaviness, walking no longer produces any painful feelings, but progression is difficult with the affected side Very often, on the next day or day after, there break out some little phlyctenules of vesication, so that, if a second application be necessary from the persistence of the affection, it is wise to wait until all signs of local phlogosis have disappeared, when there is vesication, say about two days, before renewing it

Dr Vinay records twelve cases, viz six neuralgias of the sciatic nerve, two neuralgias of the central nerve, one neuralgia of the crural nerve, and three lumbagos Of these, eleven were cured and one relieved His cases of sciatica were serious, either from intensity of pain, long continuance of the affection, or trophic disturbances, so that with them he had to make two and three applications before reaching a definite and permanent cure The objections to its use are first, the prolonged erythema that ensues, he has seen a case in which it was present four months, but this certainly is not comparable with the indelible pigmentation often left by blisters, secondly, vesication is frequent, but it has no importance in itself, and thirdly, eschars sometimes result, but they are rare and easily avoided They are superficial and do not seem to be of much importance, they should be avoided, however, as they are a cause for the continuance of the pain in the skin, they interfere with walking, they retard a new application, and prevent patients from going about their usual occupations as soon as they might otherwise. In the lower limb these little cutaneous sphacelæ select the superficial portion of the popliteal space and where the flexion of the knee is most active. This can be avoided by operating rapidly and superficially.

MEDICINE.

Hydrobromate of Quinine and Valerianate of Caffeine in Malaria.—Ceredo, after an extensive experience, concludes that hydrobromate of quinine is preferable to the sulphate for the following reasons:

1. It is more active in moderate doses.
2. It acts as a nervous sedative.
3. It arrests vomiting, a very important matter in some cases.
4. It causes favorable modifications in the type of the fever, and lessens the chances of relapse.
5. It is more pleasant to take, does not irritate the intestinal mucous membrane, and causes neither constipation nor diarrhœa.

If it does not diminish the intensity and duration of the febrile paroxysm, it may be given in capsules with valerianate of caffeine, and this combination, given half an hour before the onset of fever, may arrest it. By thus combining the drugs (hydrobromate of quinine, gr. xv, valerianate of caffeine, gr. viii–x) some of the quotidian forms, which are rebellious to large doses of sulphate of quinine, may be cured. The action of these two salts is much greater than of large doses of quinine alone.—*Nouveaux Remedes*, Nov. 15, 1885.

Intestinal Etherization in Cholera.—Dr. Jose Godoy Rico, of Granada, proposes intestinal etherization in the treatment of Asiatic cholera, on the grounds that the cholera bacillus is killed by ether vapor, and that he believes this bacillus to be the cause of the disease. He thinks it entirely probable that the real cause of the disease is to be found in the ptomaines generated by the bacilli. This does not alter the case, however, since the death of the comma bacilli would at once end the formation of the ptomaines.

For the performance of intestinal etherization a 300 gramme flask is provided, containing 200 grammes of sulphuric ether. The flask is tightly closed with a compact cork, which is perforated so as to include two glass tubes, one slightly curved, through which the ether finds exit, and to the extremity of which is attached a rubber tube, about two feet long, to the end of which is attached a rubber catheter to be introduced into the rectum. The other tube, S shaped and open at the end, is the tube of security, and contains a small quantity of mercury to show any excess of tension in the intestine, since the column will readily and rapidly change when the tension becomes at all too great.

The patient is placed on his back, with the legs and thighs flexed. The ether flask is placed in a vessel containing water at 93° F., and the catheter of the exit tube is gently introduced into the rectum as deeply as possible. The rubber catheter should be sufficiently rigid that it will not curl up in the rectum. Hot water is then poured into the vessel in which the flask is situated, and the ether vapor is at once disengaged and flows into the intestine. The first contact of the vapor may occasion a sensation of burning pain, soon replaced by that of heat and abdominal tension, or there may be colic and vomiting, which are calmed by compressing the tube, or the operator may have to withdraw it to allow the patient to evacuate the bowel. The disagreeable are soon followed by agreeable sensations, reaching high up in the epigastric region, and followed by eructations which have an etherial odor (which proves that the ileo cæcal offers no obstacle to the vapor).

To obtain the desired therapeutic effect, the operation should last from ten to fifteen minutes for adults, and five to ten for children. In the first stage of the disease it should be repeated every twelve hours, in the second stage three etherizations, about eight hours apart, will usually suffice, and in the third stage the etherizations should be short, and repeated every hour or half-hour. Morphine may be given hypodermatically to keep the patient as quiet as possible during and after the operation. Of course the usual hygienic and dietetic measures should be strictly carried out. The method is thoroughly endorsed by Dr. Arozarena, lately of Cuba, and now of Granada.—*Crónica Medico Quirurgica de la Habana*, November, 1885.

SURGERY.

Sponge Grafting and Sponge-Dressing.—At a meeting of the Arkhangel Medical Society, Dr. P. A. Pokrovsky made an interesting communication on his experience in the use of sponge as a grafting and dressing material. Having reviewed the literature of the subject, the author describes his method of treating wounds and ulcers by means of sponge. He takes a best officinal Turkish sponge (to be found at any chemist's shop), cuts it into fine slices (about two lines in thickness), washes the latter in a 3 per cent. solution of carbolic acid, and, after carefully squeezing them out, covers with them the whole surface of the wound or ulcer; over the slices oil cloth or wax paper is applied, the whole being fixed, under but slight pressure, by a roller bandage or a handkerchief. When purulent discharge is excessively free, a layer of cotton-wool or a woolen cloth is placed over the oil cloth. In other words the author uses sponge instead of gauze, as a constituent of a warming compress. The slices of sponge (as well as the whole dressing) are changed one, two, or three times daily, according to the profuseness of the suppuration. The sponge dressing, applied in this manner, was employed by the author in four cases of extensive syphilitic ulcers of the thigh, leg, scrotum, and elbow, in eight cases of soft chancrous ulcers of the glans and collum penis, prepuce, scrotum, etc., in one case of chancrous bubo, and in twelve cases of non-syphilitic ulcers of the leg, forearm, shoulder, etc. In several of the cases sponge grafting, after Professor Hamilton's plan, was tried. The results of the author's observations may be summed up thus:

1. Sponge used as a dressing material acts on the

ulcerative process purely mechanically Being porous and endowed with extreme capillarity, it frees the ulcer or wound from purulent discharge, at the same time, it acts as an irritant on the surface of the ulcer Hence it favors an afflux of nutritive material to the ulcer, which presents a necessary condition for the healing process

2 Sponge is an excellent dressing material in all cases of old obstinate ulcers with free purulent discharge Under the sponge dressing, ulcers pretty rapidly cleanse themselves and undergo cicatrisation [Thus, in seven cases of crural ulcers cure ensued, on an average, in twenty six days]

3 The sponge dressing brings about rapid cleansing and healing of soft chancres and chancrous buboes (cure following in about ten days)

4 In syphilitic cases, the sponge dressing gives rise to rapid cicatrisation only after the syphilitic virus has been mitigated by specific treatment, otherwise the application of sponge causes disintegration of tissues

5 Sponge-grafting causes suppuration and retards the healing process [The author's attempts at sponge-grafting had been so unsuccessful, that he altogether dismissed Hamilton's method from the treatment of ulcers in his practice According to his opservations, sponge grafts do not undergo absorption, but are disintegrated and fall away in pieces during irrigation, or in consequence of their being undermined by pus] The ulcer does not heal until the last sponge particle is removed

In conclusion, Dr Pokrovsky points to the extreme cheapness of sponge dressing All the cases of ulcers which were admitted to the local hospital in 1884 were dressed with sponge, the expense of the latter did not exceed four roubles (about eight shillings) —*London Medical Record*, Nov 16, 1885

TREATMENT OF FRACTURE OF THE THIGH IN CHILDREN BY MEANS OF THE "STEADLE SPLINT"—In a note on this subject, MR S WILSON HOPE, of Pentworth, Sussex, says By the steadle splint, or crib-splint, is meant the using a steadle, bedstead, or crib, for the purposes of a splint, namely, for extension and counter extension, and any further appliance for setting, or coaptation, may be omitted, with good results One method of using it which answers very well is this from an ordinary bandage, cut such a length as, when folded in the middle, will reach from the lower ribs of the child beyond the top cross-piece, forming part of the framework upon which the mattress rests, whether it be the framework of an iron bedstead, of a crib, or of an old wooden steadle Take two such lengths, and lay them singly, not doubled, along the sides of the child's chest, and pass round the chest, under the arm pits, and over the bandage-lengths, an ordinary rib roller On bringing upon the outside of the roller the other ends of the bandage-lengths, there is on each side of the chest a loop of bandage, with the rib roller lying in the loop Let the upper and the under portion of bandage be secured separately by thread or safety-pins to the upper edge of the rib roller, and at such points that the under part goes under the shoulder, and the outer part over the shoulder, without dragging Adjust the child's head and pillow, and fasten the bandage lengths to the top cross piece, which forms part of the framework upon which the mattress rests And one has only to raise the feet of the bedstead upon bricks, when the arrangements for counter extension are complete Cover the ankle thickly with wadding, and, having taken a loop length of bandage, long enough to reach from the angle, beyond the bottom cross piece, forming part of framework which supports the mattress, tie the bandage round the ankle, with the knot at the back, above the heel, make extension, and secure to the bottom cross-piece All that remains is to keep the foot in position by means of bandage-lengths passing round the foot, and fastened to the side pieces of the framework, and the thigh is set The main use of such a plan as this is that, in whatever out of-the way house one finds a child with a broken thigh, there also, is the steadle splint

But, besides, the following points might be mentioned in its favor 1 It avoids all the trouble consequent upon perineal bands in children 2 The counter-extending bands over the shoulder check both forward and turning over movements during sleep, as well as when awake 3 In permitting the omission of special setting splints and all bandaging, it adds to the comfort at the time and throughout the treatment —*British Medical Journal*, Nov 21, 1885

NEPHROTOMY FOR TOTAL SUPPRESSION OF URINE —MR CLEMENT LUCAS performed an unique operation in Guy's Hospital on October 29th A woman, from whom he had removed the right kidney for total destruction of its secreting structure by large calculi and hydronephrosis, about four months ago, and who had made a rapid and complete recovery, was suddenly seized with great pain in the left kidney, followed by vomiting headache, and suppression of urine She passed urine last on Sunday morning, October 25th, between 8 and 9 o'clock and from that time till the operation on Thursday afternoon, no urine passed, and vomiting was persistent Her medical attendant, Mr Atkins, of Sutton, correctly interpreting the meaning of her symptoms, placed himself in communication with Mr Lucas, and the patient was brought to London on Wednesday, October 28th It was thought that the effect of diuretics in flushing the kidney might yet be tried whilst the patient was watched These proved of no avail, and on Thursday afternoon, the patient having become drowsy and much weaker, Mr Lucas cut down on the remaining kidney, and removed from the pelvis a conical calculus, measuring seven eighths of an inch by one half in its greater diameters Total suppression had then lasted 102 hours A free flow of urine took place at once through the wound, and the patient was relieved of her vomiting and drowsiness Five days after the operation she was doing well and feeling comfortable Mr Lucas's case of nephrectomy performed on October 20th healed without suppuration or fever The patient sat up for the first time on the eighth day, and is now convalescent —*British Medical Journal*, Nov 7, 1885

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer s full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE
PER ANNUM IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, DECEMBER 12, 1885

COMPARISONS THAT ARE UNPROFITABLE, AND INFERENCES THAT ARE UNJUST

In another part of this JOURNAL will be found the interesting address of DR J E REEVES, of Wheeling, West Virginia, as President of the American Public Health Association While reading it with both pleasure and profit, the following sentence has again reminded us of the paper on "State Medicine" by Dr Frank S Billings, published in this JOURNAL, of September 19, 1885 "A comparison," says Dr Reeves, "of the liberal and wise provision made by some of the European powers for the promotion of sanitary science, and for enforcing its life saving and wealth producing precepts among all classes of the people, with the spasmodic, unreliable, and inefficient legislation on the same subject, in this rich and great country of ours, is, to say the least, not flattering to our national pride" From this and what follows relating to the same subject in the address, the legitimate inference would be that our National Government had done little or nothing to foster sanitary science or to promote the health of our citizens, and consequently the latter must be suffering in comparison with the citizens of some European countries whose more liberal and wise governments *enforce* the life saving precepts of sanitary science among all classes of the people

The address does not tell us which of the European powers are the most liberal and wise in promoting sanitary science, and enforcing its precepts among the people, or we could turn to the department of vital statistics and learn just how much greater had become the *average* duration of human life in such countries than in our own But if the reader will refer back to the paper of Dr Frank S Billings, he will readily find that the governments which have exhibited the greatest *liberality* and *wisdom* in fostering original investigations, developing sanitary science, and enforcing its precepts in the most efficient and enlightened manner, have been the monarchial governments of France and Germany, while the more liberal or less monarchial governments of Great Britain and the United States have done nothing in this direction To use his own emphatic language "There is no such thing as organized State Medicine in Great Britain or in any of her dependencies" Again, "Great Britain has neither a well organized Public Health or Veterinary Police Service" And again, "In the United States, the people of which boast so much about their intelligence and prosperity, there is scarcely any such thing as State Medicine No efficient Boards of Health, no trustworthy milk inspection, no inspection of dairies, etc, etc Not a State in this Union gathers reliable statistics on these vital questions Our Boards of Health are a farce, composed of men the majority of whom have more knowledge of 'ward politics' than of their technical duties" And so on, *ad nauseam*

It is only just to the members of the Section of State Medicine of the American Medical Association, before whom the paper of Dr Billings was read, to state that its sentiments were freely criticised by several of the members present, and perhaps not fully endorsed by any It is not our purpose, however, to criticise at present either the address of Dr Reeves or the paper of Dr Billings, but rather to use them as suggestive of three very prevalent and important errors The first is the habit, on the part of many of the members of our profession, of writing and speaking in terms of indiscriminate disparagement of everything pertaining to the professional and scientific institutions of our own country, as compared with those of Europe The indulgence of this habit contributes much towards the creation of an unjustly low estimate of all our institutions by the educated classes of other countries, and it strongly discourages efforts at advancement at home Such writers create the impression in the minds of thousands at home and abroad that there are literally no laboratories, either chemical, histological, physiological or pathological, in any of the medical institutions of this country, in which important practical and original work is or can be done The truth is, however, that such laboratories have existed for years in the Medical Departments of Harvard, of the Pennsylvania University, of the Michigan University, of the Northwestern University, not to mention the Carnegie and Johns Hopkins laboratories recently opened, in which the thorough practical education of students is prosecuted systematically, and some original work of value is being done every year And much more would have been done, had not the indiscriminate disparagements of our own writers created the impression among a large part of our young men, that they can not be quite sure they can see, even an *os uteri* through a speculum correctly, unless they do it in Vienna or Berlin If one half the time and money now spent by young Americans in crowding the laboratories and clinics of Europe, was spent in attendance on the clinics and laboratories already established in our own country, that very patronage would speedily bring to them every appliance and facility for education and original research that is to be found in any part of the world

The second erroneous impression created by the writers to whom we have been alluding is, that the United States Government has done nothing to foster medical education or to promote sanitary science To show the erroneousness of such impression it is only necessary to point to the Army Medical Museum and Library, the invaluable volumes containing the Medical and Surgical History of the War, the Naval Bureau of Hygiene, the Medical or Veterinary Department of the Agricultural Bureau, the important original work done in various directions by the National Board of Health and published in its Bulletins, and all supplemented by as efficient a system of quarantine and inspection to prevent the importation of diseases or their causes from other countries, as can be found elsewhere Has not the money been drawn from the Treasury of the general Government for the creation and progressive development of all these? Has not almost the entire work been done by thoroughly trained medical officers of the Army and Navy, liberally detailed from year to year for such work and sustained by their regular salaries from the Treasury? Then why not be ready and careful to give credit where credit is due, instead of indulging in wholesale disparagements?

The third and last error that we notice as fostered by this class of writers consists in the assumption that everything of value in science, medicine and sanitation must be done by the Government With them the citizen is the mere ward of the Government, while the latter is an ideal agency possessed of boundless pecuniary resources and such paternal wisdom as fits it to regulate and provide for all the individual and social interests of man They seem to have no conception of two of the plainest and most important truths of political economy, namely that human governments have no pecuniary resources except what they draw by some form of taxation from the productive industries of the people they govern, and that whatever, of a sanitary, educational, or scientific character, the citizen in his individual, family, or municipal capacity can do, will be done more efficiently and economically in those capacities than can be done by the paternal interference of the Government Hence, while neither Great Britain nor the United States have, in the estimation of such writers as Dr Frank S Billings, "no such thing as organized State Medicine," and "no efficient Boards of Health," both countries are in better sanitary condition to day than any of the larger Continental countries, in both is the annual ratio of deaths to the population less, and in both is the average duration of human life greater Further comment is unnecessary, at present

STROPHANTHUS, A NEW REMEDY OF THE DIGITALIS GROUP

In more than one instance civilized man has turned to good account in the healing of the nations deadliest poisons which his savage brother had employed as an agent of destruction In Central Africa there grows a plant whose seeds are used by the natives as a deadly arrow poison A paste is made from the crushed seeds and with this the arrow-heads are smeared It is a powerful muscle-poison, the same as curare With this agent Dr Thomas R Fraser, Professor of Pharmacology and Materia Medica at Edinburgh, has been experimenting for the last fifteen years or more It is to his paper, delivered before the Section of Pharmacology and Therapeutics at the last annual meeting of the British Medical Association, at Cardiff, that we are indebted for the facts we propose to furnish to our readers

Dr Fraser's valuable contribution, together with the discussion upon it, is to be found in the *British Medical Journal* of Nov 14, 1885 As already stated, the pharmacological and therapeutical properties of strophanthus (hispidus?) have been engaging his attention for fifteen years past, his first contribution on the subject having appeared in the *Proceedings of the Royal Society of Edinburgh*, and the *Journal of Anatomy and Physiology*, 1870 "Previously to this time its chemistry had not been examined, and the only references to its pharmacological action were contained in a brief communication by Pelikan, of St Petersburgh, to the Academy of Sciences at Paris, 1865" In that same year the drug was mentioned in a note to a paper on heart-poisons, by Drs Hilton Fagge and Stevenson In 1872 Polaillon and Carville contributed to the *Archives de Physiologie* the results of their investigations of strophanthus, and confirmed the facts previously announced by Fraser. Its chemical properties were described in 1877 by MM. Hardy and Gallois, in the *Journal de Pharmacie et de Chimie*.

For some time Dr. Fraser was able to obtain but a limited supply of the seeds, and, indeed, for several years was forced to abandon his investigations altogether on this account. He was the first to isolate the active principle which he named strophanthin. This is not an alkaloid, is crystaline white, of a bitter taste, readily soluble in water and rectified spirits, but not in ether and chloroform, and of a slightly acid reaction. It is readily freed from its impurities. Indeed this active principle is so readily separated and exists in such large proportion in the seeds (8–10 per cent.), that so soon as a sufficient quantity of the seeds can be obtained, strophanthin ought to be placed at the disposal of every practitioner. As already stated this agent is a powerful paralysant of all striped muscles.

In order to test its action upon the heart and compare its pharmacological effects with those of digitalis, Dr. Fraser prepared two solutions of the drugs of equal strengths, and by means of Williams' apparatus introduced them into a separated frog's heart. The digitalis used was presumably of fair average strength, having been obtained from a reliable drug-house, yet a solution of 1 part in 4000 failed to paralyze the heart, at least within two hours. On the other hand, solutions of strophanthin of all strengths up to 1 part in 10,000,000 caused a speedy arrest of the heart in systole. Its action was identical in kind with that of digitalis, but inconceivably more energetic. Next a 1 in 20,000 solution of digitalis was made to flow through the vessels of a frog whose central nervous system had been destroyed. In six or seven minutes the vessels became so contracted as to no longer allow the fluid to flow through them. A similar solution of strophanthin, on the contrary, did not produce any appreciable effect upon the arterioles, and even after its strength had been increased to 1 in 2000 the contraction it occasioned was but temporary.

Herein strophanthus presents a striking contrast to foxglove. This difference will probably make it of great therapeutic value, and superior in the treatment of heart disease to any other member of this group of remedial agents. As justly stated by Dr. Fraser, digitalis may not only fail to benefit in some cases of weak hearts, but may actually do harm. It slows and strengthens ventricular contractions, to be sure, but by diminishing the calibre of the vessels, it increases peripheral resistance and thus adds to the heart's labors. Indeed, under such circumstances a heart with degenerated walls may even be subjected to the risk of a rupture. On the contrary, an agent which invigorates the cardiac contractions without materially increasing arterial tension, would seem to represent the purest type of a heart tonic. As a diuretic strophanthus may be inferior to digitalis, since it increases blood pressure only through augmented action of the heart, and not by a heightened arterial tension within the kidney.

Having satisfied himself concerning its physiological action, Dr. Fraser next tried the therapeutic power of this new agent. He employed solutions of the active principle and a tincture of the seeds of the same strength as the tincture of digitalis B. P. Before the Association he narrated the history and displayed the sphygmographic tracings of five cases of mitral disease, in which the remedy had been exhibited in moderate doses two or three times daily. The pulse tracing showed the influence of the agent in forty minutes, and the effects were remarkably persistent. When hypodermic injections of one fiftieth of a grain were given the beneficial action was manifested in twenty minutes. In one case, the pulse fell in one hour and forty minutes from 140 to 86 beats in the minute. The effects did not wholly disappear until the eighth day subsequently. Digitalin, tried in the same manner and of the same strength, yielded less satisfactory results. Prompt and free diuresis always followed the exhibition of strophanthin. There was noticed a slight lowering of the temperature in some cases. The remedy was administered cautiously, it is true, but bad consequences or disadvantages of any kind were not noted.

Space forbids so explicit an account of these cases as their interest would dictate, and the reader is referred for particulars to the original. On the whole, the report of strophanthin is most encouraging, and it bids fair to prove a powerful rival to the representative of this group of heart tonics. We trust that our enterprising chemists will, before long, supply the profession with reliable preparations of it in abundance. All honor to Dr. Fraser for his painstaking and scientifically accurate investigations.

ORAL AND DENTAL SECTION OF THE NINTH INTERNATIONAL MEDICAL CONGRESS.

So far as we have observed, the journals in different parts of the country devoted to the interests of oral and dental science and practice, give expressions of cordial approval of the present preliminary organization of the Congress, and especially of the organization of the Section of Oral and Dental Surgery The only exception we have noticed is that of the *Independent Practitioner*, published at Buffalo, whose editor, in the December number, has the following singular statement "Following this (the meeting of the Committee on Organization, in Chicago, in June last) came the announcement that the Section of Dental and Oral Surgery was, by the reorganized Committee, abolished, and that dentists would not be welcomed to the Congress, upon the ground that such medical men as had devoted their lives to the consideration of diseases of the oral cavity were not engaged in the legitimate practice of any branch of the healing art"

It is a sufficient answer to all this, to simply state the fact that no such announcement was ever authorized by the "reorganized Committee," nor by any other party representing the American Medical Association On the contrary the latter body had fully recognized the relations of dental and oral surgery to the general field of medicine and surgery several years since by organizing and maintaining a Section in that department on the same level with all its other Sections The simple facts are that the Committee of Arrangements at its first meeting in June found nineteen Sections organized, which it was then thought was a greater number than could be accommodated with convenient rooms in Washington, and more than had been provided for at any of the preceding Congresses Solely for the purpose of reducing the number, propositions were made and temporarily adopted to discontinue the Sections of Mental and Nervous Diseases, of Gynecology, and of Dental and Oral Surgery, leaving the workers in those departments to take their places in the Sections of General Medicine, Obstetrics, and General Surgery, respectively We say temporarily adopted, because neither the revision of the Rules nor of the Sections was completed and finally adopted by the Committee until its second meeting, in September, when, after more full consideration, all the three Sections, the discontinuance of which had been proposed, were retained without a dissenting vote in the Committee, that of Dental and Oral Surgery without the change of a single officer And there is every indication that the Section will be sustained with a degree of enthusiasm that will not only do credit to the many scientific workers in that department, but will also aid much in restoring that department to its proper place, as a legitimate branch of the healing art, much to the benefit of both specialists and general practitioners, and it is to be hoped that this Section will be made so eminently successful that no Congress hereafter will be considered complete without it, for we agree fully with the renowned Virchow, that no one department can be isolated altogether without detriment to the whole

A CHICAGO POLYCLINIC

Initiatory steps have been taken to establish a regular Polyclinic in this city, similar in character to the institutions under the same name in New York, Philadelphia, and some of the foreign cities If such institutions are profitable both for those engaged in them and for the profession at large, there is no reason why one of the first class should not exist in Chicago The number and extent of her public hospitals and dispensaries open for clinical instruction, the number and ability of those practising and teaching in special departments, and the number of medical students annually attending her medical colleges, give her rank among the most prominent medical centres in this country

Indeed, there is nothing to prevent any practitioner of more than three years' standing from matriculating in one or more of the regular schools, and by taking the tickets for admission to the principal hospitals and the special tickets for the chemical, histological and pathological laboratories, and then selecting for himself, not only clinical instruction in any variety and to any extent that his time will permit him to attend, but also, in the several laboratories, any amount of practical work either in chemistry or microscopy that he may desire, thereby making up for himself a polyclinic of such extent and duration as he might choose Any thoughtful practitioner can thus select for himself such extent of post graduate studies, in connection with the colleges, hospitals and laboratories of Chicago, or any of the other prominent medical centres of our country, as will be of more practical value to him, than he can get by the expenditure of the same amount of time and money in Vienna, Paris or Berlin He may not acquire as much self conceit, but he will gain a better knowledge of the advantages afforded by the institutions of his own country

THE MUTTER LECTURES —The Mutter Lectures for the present year, at the College of Physicians of Philadelphia, will be given by DR HENRY F FORMAD, commencing on Tuesday evening, December 8, and continuing each Tuesday and Friday evening to January 19, 1886 The subjects discussed in the Lectures will be, "Morbid States as influenced by Embryonal Development, Anomalous Structural Peculiarities, Injuries, and the effects of Lower Organisms, with special reference to *Surgical Pathology*"

SOCIETY PROCEEDINGS

MASSACHUSETTS MEDICAL SOCIETY—SUFFOLK DISTRICT

SECTION FOR CLINICAL MEDICINE, PATHOLOGY AND HYGIENE

ALBERT N BLODGETT, SECRETARY

Meeting of November 11, 1885

FREDERICK I KNIGHT, M D, IN THE CHAIR

DR S C MARTIN, of Roxbury, read a paper on THE INOCULATION, PROPAGATION, AND PRESERVATION OF THE VIRUS OF ANIMAL VACCINE WITH A DESCRIPTION OF THE APPEARANCES OF KINE POX, AND DEMONSTRATION OF THE VACCINE VESICLE UPON HEIFERS

Before entering upon the more practical part of his remarks, he said It is important to define just what true animal vaccination is I know of no better definition than that by my father "The inoculation of a young selected animal of the bovine species from an original spontaneous case of cow-pox, from this, others and so on, in continous and endless series, as the source and the only source of virus for the protection of the human race against variolus disease" This alone is true animal vaccination Retro vaccination, or the inoculation of animals with humanized virus, is an entirely different matter and has nothing to recommend it

A few words in regard to some of the various stocks of cow pox On March 28, 1866, the famous case at Beaugençy, France, was discovered From virus derived from inoculation from this, Professor Depaul continued the propagation of animal virus at Paris, under the auspices of the Academy of Medicine This was the stock introduced into this country by my father in 1870 Various other cases of spontaneous cow pox have been discovered from time to time in Europe, with virus from which animal vaccination has been and is still carried on in a number of establishments, notably at Brussels, Amsterdam, Rotterdam and the Hague After the first experimental inoculation of two calves, animal vaccination was not carried on at Beaugençy, but was immediately transferred to Paris, and to that city the practice of the method in France was confined A knowledge of this fact may, perhaps, in the future prevent a repetition of the ludicrous mistakes which we occasionally see in print, that various individuals have from time to time imported animal virus into this country from Beaugençy When in Paris in 1873, my father was assured by Professor Depaul that the Beaugençy virus, sent to him in 1870, was the last which left the city before the siege in that year, and that during the seige, the "stock" was lost The animal virus employed since the Franco Prussian war, is from other stocks, discovered since that of Beaugençy

In February, 1881, a case of suspected cow-pox was reported to this society by Dr E W Cushing, and was immediately referred to my father, who accompanied Dr Cushing to his brother's farm at Cohasset He there found several cows suffering from an eruption on their teats and udders With virus from these, my father and myself inoculated several animals as well as children, obtaining undoubted typical vaccinal effect This stock I have continued uninterruptedly since, and, as far as I know, it is the only authentic case of cow-pox in this country which has been preserved I keep up three different stocks continuously, namely, the Beaugençy, Cohasset, and the Esneaux stock imported from Dr Warlomont, of Brussels, reserving the upper flank of the animal for the Cohasset, the lower flank for the Belgian, and the belly for the Beaugençy, thus keeping the three stocks entirely distinct, and issuing the virus from all indifferently They appear to be all equally typical in appearance and results

It goes without saying that the animal to be vaccinated should be in perfect health and condition This must be preserved by proper sanitary measures not necessary to detail here The animals should be from six to eighteen months old Too young animals are troublesome to care for and manage, and those too old and large are not only difficult to control, but, notably in the case of those which have borne calves, are probably not free from danger of tuberculosis I use bulls and heifers indifferently The animal is secured upon the operating table, portions of the flanks and belly are cleanly shaved, and scarifications are then made in precisely the same manner as in the human subject, not deep, but merely sufficient to produce a slight appearance of serum tinged with blood These I make some three quarters of an inch by half an inch in size and place them at intervals of at least an inch and a half apart The fluid virus taken directly from an animal, in which the disease has matured and lying upon an adjoining table, is then thoroughly rubbed into these scarifications The disease matures at about the seventh day In this, however, experience and careful inspection of the vesicles is necessary to determine the precise time, it depending somewhat on the condition of the animal and climatic influences During the progress of the disease, the animal is but little affected, the temperature rarely rising more than two or three degrees Occasionally in a very fine development of the disease, the animal may lose its appetite for a day or two

The vesicle on being opened, is wiped clean of any blood or pus, and gentle pressure is then applied The fluid contained in the vesicle is of a light amber color, and should have an unctuous, smooth character In animals where the disease is accompanied by excessive action, as shown by much tumefaction of the surrounding tissues, a large amount of thin, almost colorless fluid is poured out, due to an admixture of excessive flow of serum with the virus itself I shall speak of this matter more at length in a moment In some calves, from the finest vesicles it is impossible to obtain lymph without a certain tinge of color, due to the admixture of a minute quantity of blood This, it can be readily seen, is not of the slightest importance in virus taken from the animal It was always my father's custom, and is my own, to use those points most tinged, not only for vaccinating other animals, but also for human vaccination. The sharp end of the ivory points is charged on both sides with the fluid virus as it exudes from the vesicle. When dried, the points are wrapped in cotton in packages of convenient size, then in paper, and finally are hermetically sealed in gutta-percha tissue. This effectually guards against moisture, and if care be taken to keep them cool as well, they will retain their efficacy for a considerable time. I have myself made vaccinations with points so kept for over a year, and have obtained perfectly good and typical results. This, however, is not recommended. Points should be ordered only in small quantities as required, and used within a few days or weeks. In this, and also in all the details of propagation, it is not what may perhaps suffice, but what experience has shown is safe and good beyond peradventure.

As to the form of virus, I recommend nothing but fluid lymph dried upon ivory points, prepared as above described. Crusts are likely to prove inert, and, unless used with the greatest care, may cause very bad results from partial decomposition ensuing after the crust has been moistened. They are apt also to encourage highly undesirable methods, such as inserting the dry, pulverized crust, or portions of the crust itself into punctures, also mixing with water, and allowing the mixture to remain too long exposed to the air. This was one very serious objection to the "solid lymph cones," formerly sold in large quantities, but now, it is believed, no longer in the market. These were composed of crusts and fragments of crusts, powdered, moistened and molded into cone shaped masses. They were not only open to all the objections applying to crusts but the mode of their manufacture rendered them peculiarly liable to dangers evident to any intelligent physician. Storing fluid lymph in glass capillary tubes has been found very unsatisfactory. It was at one time much in vogue, but experience has shown that virus so stored is extremely likely to prove inert, and unless sealed perfectly tight may become decomposed and dangerous. One great merit of points is, *that it is well-nigh* impossible to have serious complications attending their use, if they are charged with pure active lymph in the first instance. They either produce typical vaccinia, or, at the worst, prove inert owing to some accidental cause subsequent to charging. In distributing any form of virus, we must bear in mind that among so large a body of men as compose the medical profession, some will be found who will not use proper care on all occasions, and it is most important to issue only that form with which it is impossible to go wrong.

The propagation of animal virus, and its distribution to physicians, are at present, in several ways, in an unsatisfactory state. The *New York Medical Record*, in its issue of October 24th, 1885, editorially says: "At present in all large centres, bovine virus in vaccinating is largely used, and the steadily increasing demand for this has led to the formation of companies who undertake to cultivate and sell it, with a view primarily, to making money. These companies are not, as a rule, under any official supervision, and are at perfect liberty to disseminate worthless crusts or septic poison among the people. We learn as an illustration that, with a lot of bovine virus recently sent to Montreal, there were one hundred and two trials and one hundred and two failures, while other specimens have produced badly inflamed arms. Here, surely, is a most anomalous condition of things. It is apparent at once that this cultivating and selling of virus should always be under some official supervision. Most States indirectly compel the vaccination of children, and they should in all justice see that this vaccination be made with pure and efficient material. But the public supervision of vaccine companies is not yet carried out as it should be, although it is a measure most imperatively needed for the security of the people."

The distribution of virus to physicians is now largely done through druggists and instrument makers. My father and I have for several years refused to supply virus except directly to physicians, or through the hands of local agents in Boston for the convenience of the profession. We continued this rule until it became evident that physicians would not take the trouble to procure it direct, but preferred to rely on the nearest druggist. This is all wrong. Vaccine virus is not a substance to pass through three or four intermediate hands before reaching the physician. It is peculiarly liable to deterioration, and, furthermore, the physician should know just who propagates the virus he uses. I fear that in many cases he is entirely in the dark as to this. Many propagators do not do business under their own names. Large numbers of "Companies" are advertising widely. Possibly, some of these are regularly incorporated companies and are conducted by competent men, but it is believed that some of them adopt the title merely as a convenient *nom de guerre*, like those of certain "Institutes" composed of a 'Board of Physicians," in whose spacious laboratories skilled chemists and *savans* compound precious elixirs for the relief of noble but erring youths. I wish to emphasize this matter somewhat for the reason *that physicians have become far to careless as too the* source of their vaccine supply. The druggist naturally will sell the virus on which he can make the most profit. Animal virus, properly and honestly propagated, is not cheap. By improper methods it can be produced in immense quantities. The temptation to do this, particularly in times of great demand, is irresistible to men who have no professional reputation to sustain, and who look upon the matter as a 'business or trade."

I have described and shown what I consider the proper method of inoculating the animal and preparing the virus. My father and myself after many experiments, found it to be the best. The number of points which an animal vaccinated in this manner will yield is comparatively small, but I consider that any attempt to increase the yield is fraught with certain dangers. In times of great demand (the time above all when only what is *known* to be the best should be practiced) certain propagators have found this method far too old fashioned and "unbusiness-like" for their views. An animal must be made to yield 15,000 to 20 000 points, or more. To accomplish this the following expedient has been adopted

A full grown cow is usually selected on account of its size. Scarifications from two and one half to three inches in length, by some two to three inches in width are made on the flanks at intervals of about an inch apart. These produce large inflamed surfaces, often coalescing, so that at the end of seven days, one large sore will often occupy the whole escutcheon of the animal. Upon this being opened, an immense flow of *colorless* fluid results, with which points are charged. I state the method to you, and say frankly that I utterly disapprove of it. Such extensive scarifications with the great attendant inflammation must necessarily produce an excessive flow of serum, and it would be a bold man indeed, who would confidently pronounce the resulting fluid free from the products of inflammation. It will readily be seen that such immense sores will yield an almost unlimited supply of this fluid. It seems to me that the practice is fraught with dangers, evident to any intelligent physician. Suppose the only possible trouble to be apprehended from such virus was either failure to produce typical vaccinia, or the production of vaccinia, *plus* a certain amount of inflammatory action, greater or less.

Surely, there being a better way, it should be practiced in preference, even if not so profitable and even if it did not allow the propagator to be so "liberal" to agents and boards of health.

The wholesale propagation and distribution of improperly prepared virus have done infinite harm to the reputation of animal vaccination. My father introduced the method as an improvement on the existing state of things. It *is* an improvement, and a great reform, if properly and honestly carried on, but many reports, a few of which I read to you, tend to show that from certain causes it is capable of becoming the very reverse of a reform.

The Board of Health of Louisiana writes, May 16, 1882. "Failure with bovine points during the present season has been the rule rather than the exception." The Secretary of the State Board of Health of Arkansas writes, April 28, 1882. "The trouble in this State has been not so much from the bad effects derived from bovine virus, but rather, from obtaining no effects at all. Reports have reached me from all parts of the State in regard to the worthless character of much of the bovine virus employed." The Secretary of the Medical Association of Alabama writes, April 30, 1882. "To sum up the whole in brief, the profession here to a man prefer humanized virus to the bovine lymph in any form, and have long since abandoned it." The State Board of Health of Minnesota writes, April 28, 1882. "There has been much complaint in all directions."

Dr. E. L. Griffin, of Fond du Lac, Mich., an intelligent and able propagator of virus, writes, February 8, 1882. "I fully sympathize with your views on what is being done during the boom to supply the demand, and greatly fear that animal vaccination will get a bad set back from the experience of this season." The same gentleman writes, March 6, 1882. "Those infernal 'cones' have done much mischief, I believe in the West. The other day I got a sharp letter from the Secretary of the Board of Health of a neighboring city, upbraiding me on the quality of my virus, saying that it did not give typical developments of pock, but produced enormous sloughs and sore arms, etc., and wished to know what I was going to do about it. Upon inquiry by correspondence, I found that they had been using cones, obtained from a druggist in Chicago, and that the stuff was represented as coming from me."

Dr. D. A. McLean, of Stanton, Mich., writes, May 8, 1882, in regard to his experience with points from the notable vaccine company before referred to, whose virus was propagated by farmers. This virus he obtained through a druggist, supposing it to be that propagated by the gentleman who exposed the fraud, as narrated before. Dr. McLean writes — "The remaining 1400 cases were vaccinated with points obtained from that institution. A large proportion of these cases were very severe, the fever high and very frequently confining them to the house for a week or more. The local manifestations were great swelling, redness, pain, in fact all the symptoms of vaccinia greatly intensified, and frequently resulting in a deep, foul, and very offensive ulcer. These were very slow to heal, in fact, at this date, nearly three months after the vaccination, I am told that some are not healed. In a large number of cases, I am satisfied that no true vaccine pustule was formed, merely a septic sore, and these were the worst cases to heal, and the constitutional disturbances were the greatest. From my experience I am led to believe that the virus was not pure, that is, proper care had not been used in propagating and preparing it, that pus from ordinary suppurating sores had been used to charge the points, or at least had become mixed with the vaccine virus."

Dr. Benj. McCluer, of Dubuque, Iowa, writes, July 7, 1882. "I used one 'cone' during my vaccinations last December and January. I became fearful of them, as also of the points. The vaccinations were so severe in development, such immense ulcerations occurred in apparently healthy children, that I became doubtful in regard to the propriety of vaccination at all. In fact, I lost all confidence in the integrity of the parties dealing in vaccine matter, and felt that they were actually trifling with the health and lives of the community, as well as the character and honor of the profession which was procuring the supply of vaccine matter from them. I do hope that some way may be developed by which in the future the profession may be able to secure pure vaccine."

Dr. John B. Weston, of Chester, Pa., writes, October 6, 1882. "Part of the time I used a cone which came in a metal box with a file. Part of the time I used a crust. My experience with the cone was vexatious in the extreme. Erysipelas was not infrequent, and I am afraid that the fever and disturbance in one case, if not in two, caused a child's death. The sores in most cases were horrible, and many told me that they would rather have variola itself than what they had gone through. It was not due to any carelessness on my part, for I did not use any a second time, or mix one day's filings with another, so I know the fault was not mine."

Dr T S Hopkins, of Thomasville, Ga , writes to the *National Board of Health Bulletin* of March 4, 1882, describing the effects of vaccination with virus in the form of "cones " "The result has been fearful Nearly every one vaccinated has suffered severely from erythema, or erysipelas, the arm swollen from shoulder to wrist, and the point of puncture presenting the appearance of a sloughing ulcer discharging freely sanious pus Many of the cases have been confined to bed with high fever from five to ten days, requiring the constant application of poultices, and the free use of morphia for the relief of pain It (the virus) 'takes' in all cases, regardless of previous vaccination as shown by well pitted mark, and the inflammation begins frequently on the second day Those who have tried it tell me they would much prefer to have small-pox "

I have reports of many more similar groups of cases, but will not prolong my quotations to a tedious length The above are merely selected as being well marked instances, showing clearly the symptoms of septic poisoning in a greater or less degree It will be observed that the above are groups of cases, showing precisely similar symptoms in a large proportion of the persons vaccinated Single isolated cases of even severe complications, the result of accident, or in unsound or sickly subjects, prove nothing, but such instances as given above are unmistakable The vaccinia induced by heifer transmitted virus is characterized by a certain intensity of action which might be startling to one accustomed to seeing only the effects of the enfeebled virus of long humanization, but this intensity is not to be deplored, and is only what is necessary for proper protection against variola It should run a regular course, the vesicle should not break down except through exposure to violence, and, finally, the crust should fall, leaving a healthy, thoroughly healed cicatrix

The complications spoken of above, as well as the woful lack of success, are not due to the *practice*, but to the *malpractice* of animal vaccination With animal virus properly and honestly propagated, the chances of failure or serious complications are exceedingly small Practically the only guarantee which the physician has that the substance on the end of an ivory point is pure virus, or, indeed, that it is vaccine virus at all, is the reputation, skill and honesty of the propagator So long as physicians and boards of health will buy and recommend virus simply because it is cheap and produces a "sore arm," utterly regardless of the source of supply, or whether the propagator is a physician or not, so long may we expect a reckless increase in production, the keenest and most dishonest competition, and such results as I have shown above Animal vaccination is too efficient a safeguard against a loathsome disease, to have its good name injured by ignorance or knavery The remedy is in the hands of physicians They should inform themselves of the source of supply of the virus they use, and if abuses arise, should denounce them fearlessly, and not leave the disagreeable task to persons whose pecuniary interest in the matter renders their motives liable to misconstruction and willful misrepresentation

The discussion was opened by DR S W ABBOTT, Chairman of the Massachusetts State Board of Health, who stated that he had been interested in the subject of vaccination as a protection from small-pox for many years During the late Civil War, the source of the virus obtained for the army was from retro vaccination from the human species to the bovine, and from this source many thousands of soldiers acquired immunity from small pox Dr Abbott entirely agreed with Dr Martin in the necessity of the greatest care to preserve the purity of the bovine virus, and in the importance to the medical profession and to the entire people that the business of propagating vaccine virus should be intrusted only to such persons as are well known, responsible, and honest, besides possessing the necessary medical knowledge required for the safe and scrupulous management of so delicate a pathological process as is that of the vaccine disease in cattle

The virus of vaccine is subject to many dangers even when most carefully produced and most thoroughly protected From the moment the lymph leaves the parent vesicle in which it was formed, it is undergoing a process of deterioration Under some conditions, the best virus may become quite useless as a protection against the ravages of small pox I have known this to be the case in many parts of the United States, and to some persons it has been the cause of a loss of confidence in the utility of vaccination as a prophylactic measure Dr Griffin, who is one of the pioneers of vaccination in the West, has observed the same failure in regard to the protective power in the virus, which he traces to the following causes *First*, the great distance from the source of the virus, which necessarily exposes this delicate material to many undesirable changes of temperature, and to a longer period of time between its production and the time of its use for protective inoculation All virus is exceedingly perishable, and is constantly suffering from the moment it leaves the heifer There is no doubt that ivory points are much to be preferred for the preservation of the virus, as they are smooth, shapely and convenient, and are beyond question the most useful carrier ever employed

The use of crusts resulting from vaccine vesicles, or any portion of the dried scab, should be utterly abolished, and these substances should be entirely discarded in the protective and prophylactic treatment of variolous diseases Many accidents have occurred from their use for purposes of vaccination, and not a few unfortunate complications, such as erysipelas, abscess, sloughing of the skin of the arm, and occasionally, septicaemia and death, have followed the introduction of the scab, or crust, or the so called "cones," or parts of these substances into the human system Of all these materials for inoculation, the "cones," which were formerly more extensively employed than now are undoubtedly the most dangerous, as they were manufactured from scabs, crusts, and other products of the vaccine process, together with the frequent admixture of manure and other forms of filth and decomposition

The proper time for preserving the virus for inoculation is at a period before the crust is formed. After this time, the contents of the vesicle become purulent, and the resulting scab or crust is formed in part at least, of the dried and changed pus of the later stages of the vaccine sore. When a scab is used, the pus is introduced into the system. The results of infection of the system with the products of septic suppuration are too well known and of too grave a character to warrant the employment of a method involving the needless exposure of human beings to the unnecessary perils of so grave and unscientific a procedure under the guise of hygienic protection from a loathsome infective disorder.

The use of capillary glass tubes containing lymph is also to be discouraged, as the fluid contents are very easily decomposed and may be already in a putrid condition when employed for vaccination. The tubes may also contain many foreign germs, which certainly contaminate the virus and may entirely pervert its usefulness. The contents of the tubes is also often diluted with glycerine or some other fluid, sometimes, no doubt, as a means of preserving the virus, but frequently, also, it is to be feared for purposes of fraud in "extending" the virus. Dr. Abbott spoke of the incongruity of terms designating variola in the cow as a "spontaneous" disease. When we ask ourself, "what is a 'spontaneous' disease?" it seems hardly logical to include among such diseases one so highly infectious, so thoroughly marked and so definitely limited as is cow-pox. Is it, indeed, possible that an infectious disease can arise spontaneously?

Dr. Abbott stated that he has seen no less than twenty cases of cow-pox among the cattle belonging to farmers in Massachusetts. The nature of the disease was tested by inoculation of children, in whom it produced sore arms. True vaccination will not "take" on animals which have had this disease during at least two years. Those milking such diseased cows will frequently acquire the disease upon the hand, from contact with the cow's udder. One cow has often proved a source of infection for others of the same herd, by transmission of virus from one to another by means of the hands of the milkers. This has been successfully prevented by the simple precaution of milking the diseased animal after the others. Such cases among domestic cattle have been observed in Lexington, Woburn, Saugus, and some other towns, and were considered both by the farmers and the State Board of Health to be undoubted cases of cow-pox. The production of animal virus is accompanied by much sacrifice of time and money, and much disappointment and vexation, owing to the spasmodic character of the demand for it as a protection against variola. During the times of epidemic small pox, the demand for virus is very large, while in time of absence of the disease, the demand for virus is almost nil. It is therefore highly important that the production of vaccine virus should be in the hands of trustworthy and responsible men, in order to insure the integrity of its propagation in time of peace, as well as the integrity of quality in periods of epidemic small pox.

The medical profession of the United States should recognize the laudable efforts of Dr. Martin to maintain and propagate pure and efficient virus, and support him in his beneficent work as they supported his father before him. Vaccination can be made thorough and protective only by observing accurate methods in its employment. One of the chief disappointments in vaccination is due to the advanced age and consequent deterioration of the virus employed. A complaint was recently made by a physician in a distant part of the State, that the vaccine obtained for use in that town was quite worthless, and produced no appreciable result in any case. Investigation revealed the fact that the physician derived his vaccine from the local druggist, who had obtained a supply some time before from a wholesale drug store in Boston. In this case the virus had passed through several hands before it reached the physician, and much time had elapsed between the charging of the points from the heifer and the vaccination for protection from variola. It would be desirable if all packages were dated so the physician might be sure that the virus was of a recent production. Otherwise the whole process of inoculation as a protection from small pox might be justly described in the words of a distinguished French physician who said, "Vaccination is a deceptive operation performed with hypothetical virus." It may be added, that if due attention were given to the source from which the virus is obtained, and proper care is exercised in the operation of vaccination, there would probably be much less or none at all of the excited sentiment and frequently also open opposition to preventive inoculation for small pox, and anti-vaccination riots would be no longer known.

Dr. J. H. McCollom, City Physician of Boston, stated that he entirely agreed with Dr. Abbott in the importance of employing only the virus procured from well known and honorable sources, as we otherwise have no guarantee of its power as a protective, or of its freedom from foreign and dangerous contamination. Dr. McCollom has used virus procured from Dr. Martin as well as that coming from other sources. He has occasionally seen the virus produce very sore arms but has never observed bad results. He now unqualifiedly recommends bovine virus. Human virus was formerly very generally employed, and this too without any bad results, but the protective power of humanized virus is infinitely less than that of bovine virus. One of the greatest curiosities in vaccination is the influence of the vaccine disease upon true variola. This was recently illustrated in the case of a man who was exposed to small-pox and two days later was vaccinated with cow-pox. The eruption of variola appeared, as did also the vesicle from the vaccination. The two diseases progressed, but the vesicles of small pox *never became pustular*. The entire disease was checked at the vesicular stage. The importance of vaccination after exposure to small-pox is therefore even greater if possible than before exposure to that disease. The virus obtained from the inoculation of young heifers is preferable to that from cows, owing to the liability of the latter to tuberculous disease. In the light of recent studies in tuberculosis it is important to avoid the possibility of infecting the human body with germs of this disease.

Dr S L Abbott asked if it were the experience of the present season that the inoculation with bovine virus is followed by unusually severe results In many cases there is much constitutional disturbance Is it possible that the existence of small-pox at this time provokes an unusual reaction in the system after vaccination?

Dr Martin replied that true animal virus is characterized by a certain intensity of action more than is observed from humanized virus Instead of a mild vesicle at the seventh day, we observe a well marked disease which may last from twenty one to thirty-two days The areola appears at the ninth to tenth day and the fever also appears at that time A crust is formed after the fall of the scab from the original vesicle The process affects the entire thickness of the skin and not simply the epidermis The intensity of the reaction is a valuable indication of the protective power of the virus Indeed the earlier observers of this process judged the success of the inoculation from the degree of fever produced The bovine virus induces a distinct *disease* which protects the animal system from an invasion by small pox, which humanized virus does not The arms of servants and laborers are more sore on account of their occupation which necessitates exposure of the limbs to various insults, as well as to sudden change of temperature, both of which doubtless cause increased severity in the vaccine disease The term "spontaneous" cow pox is certainly a misnomer It is used simply as a convenient expression in cases where the source of infection of the cow cannot be traced "Spontaneous" infective disease is doubtless derived from some tangible source, but it is impossible to discover its origin If Dr Abbott has seen so large a number of cases of genuine cow pox, he has certainly been far luckier than Dr Martin There may be isolated cases, but they are certainly not generally known The only indisputable case now recognized as occurring in this country is the Cohasset case, which has since been propagated by Dr Martin in uninterrupted succession There are many known cases of spurious disease which make the hands of the milkers sore Such cases have long been observed, and were reported by so old an authority as Sir William Jenner himself, but this disease is not cow-pox, nor has it any similarity to the true disease in the way of protection against small-pox

---

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

Stated Meeting, November 11, 1885

WM G PALMER, M D, TEMPORARY CHAIRMAN, IN THE CHAIR

Dr Bermann presented a patient with

A CYSTIC GOITRE

and read the following history of her case

Miss ——, aged 23 years, consulted me about a throat affection which had been troubling her for several years She spoke in an unnatural falsetto tone, and was subject to frequently recurring attacks of aphonia Laryngoscopic examination revealed complete paralysis of the right vocal cord, a condition evidently due to the existence of a cystic enlargement of the thyroid gland, which was principally developed upon the corresponding side of the neck I treated her for some time with the customary remedies, giving iodide of potassium in large doses, combined with iron, as she was chlorotic External application of tincture of iodine was employed, as well as faradization of the larynx

This line of treatment having failed, I resolved to try a method recently recommended by Dr A Weiss, of Meiningen (*Berl klin Woch*, No 2, January 12, 1885) This consists of cauterization of the integument covering the goitre. After three applications of the galvano-cautery, I observed a decided diminution in the size of the goitre, as well as softening of the contents of the cyst I have no doubt but that after a few more applications the goitre will entirely disappear Her voice is improving very much, and there is every reason to believe it will be fully restored after the cause of the trouble will have been removed

In reply to a question from Dr Hagner, Dr Bermann said he did not believe there was any hysterical element in the case

Dr J Ford Thompson read a note on

THE HYPODERMIC USE OF COCAINE

He said that his early experience with cocaine had not given satisfactory results The reason for this, however, was not to be found in the drug, but in the mode of using it He believed that it cannot be relied upon when merely applied externally to mucous surfaces, skin, or other tissues It seems to have its greatest power when applied to the eye and the respiratory tract In other localities it has often failed him He had used it on the male and female urethra prior to an operation, and there was no anæsthetic effect He had sought to use it before closing an enlarged meatus urinarius, but the man suffered as much as if water alone had been applied He endeavored to dilate the urethra of a young lady in order to search the bladder Before doing so he painted the urethra, in fact, filled it, with a solution of cocaine, but without avail He was compelled to give ether He then began to use cocaine hypodermatically (four per cent solution), and was well pleased with his results When it failed, he believed it was his fault in not waiting long enough for the action of the drug He had used it successfully in operating upon internal and external hemorrhoids, in opening abscesses, in operations upon the upper jaw, in circumcisions, in removing splinters and toenails, in lancing a bone felon, in removing a tumor from the neck, and a fatty tumor from the scalp, in restoring the perineum, in aspirating an abdominal tumor in a child, in external urethrotomy, and in many other cases

On November 9, however, he unsuccessfully injected it before using the actual cautery He attributed the failure, though, to his not waiting long enough for the action of the drug A few moments later, the patient complained of numbness in the part, showing, as the doctor thought, that the action of the cocaine was obtained, and if he had waited the patient would not have suffered from the application of the cautery He had used all the other local anæsthetics, such as rhigoline, ether spray ice and salt, but he considered cocaine better than all others He thought it fortunate that we were in the possession of such a valuable local anæsthetic, as he believed there were many cases in which the causation of general anæsthesia was of doubtful propriety He had seen two cases in the past few months where the death of the patient was at least indirectly hastened by the administration of ether, or at any rate the anæsthetic added to the already existing dangerous condition

In reply to a question by Dr King, he said he had noticed a soporific influence of the cocaine upon one patient, and Dr McArdle had told him of an infant's having been twice put to sleep by dropping it into the eye

Dr King thought it would be a good idea to place a ring upon the surface to be cut or punctured, and pour the cocaine into the space thus circumscribed An incision then being made, the cocaine would be absorbed, and the incision could be continued until the required depth was reached In using it hypodermatically he thought the exposed part might escape the anæsthetic effect Moreover, this method might be tried if the doctor had forgotten his hypodermic syringe

FOREIGN CORRESPONDENCE

LETTER FROM LONDON

(FROM OUR OWN CORRESPONDENT)

Value of Vaccination — A New Ventilator — Pasteur's Work in Hydrophobia—Tauro cholate of Soda in Gouty Obesity and Dyspepsia—Presentation of the Albert Medal to Dr C Thompson—Death of Dr Pirie

Dr Gayton, Medical Superintendent of the North-Western Hospital, and formerly Superintendent of the Homerton Small-pox Hospital, the Hospital Ships "Atlas" and "Endymion," and the Darenth Small pox Camp, has probably had a wider experience in small-pox than any living authority His opinion, therefore, upon the value of vaccination is of the highest importance, and the analysis which he has just published, of 10,403 cases of small pox which have come under his observation, is the largest collection of cases that can be referred to, with the exception of those prepared by the late Dr Mareon, of the Highgate Small pox Hospital In the first place, it lays down that a person who has been properly vaccinated, and re-vaccinated, is absolutely safe Of males vaccinated once, and having good marks of vaccination still visible, there were 1163, the mortality among these was 3 26 Of 922 females similarly marked, the mortality was 2 60 per cent , the combined mortality in males and females being 2 97 per cent Of the male cases in which the marks of vaccination were imperfect—2670 in number—10 11 per cent died, in 2184 females similarly marked, the death rate was 8 46 per cent , the average of males and females together being 9 37 per cent Of 692 males who stated that they had been vaccinated, but whose arms showed no evidence of the fact, the rate of mortality was 29 4 per cent , and among 603 females similarly circumstanced, 24 5 per cent died, the combined mortality being 27 18 per cent Among patients showing perfect marks of vaccination the mortality was but 2 97 per cent Among those whose marks were imperfect the mortality rose to 9 37 per cent , the patients whose marks had entirely disappeared suffering to the extent of 27 18 per cent , while of the unvaccinated no less than 43 70 per cent died More convincing proofs than this of the value and efficacy of vaccination were never published, and one recommends the consideration of the figures to the people who clamor to be allowed to expose their children without this protection to the scourge of small pox

Under the name of the "Gloucester Domestic Ventilator," Mr Ellis, a surgeon of Gloucester, has recently patented a contrivance for the ventilation of rooms, which seems likely to be of great utility It differs only in details from the form of ventilator with horizontal inlet and vertical distributing tube, which was re introduced to public notice a few years ago by Mr Tobin The details in question are, however, of considerable practical importance At the junction of the horizontal and vertical portions there is a door, so arranged that it can close the inlet either entirely or partially, thus giving to the occupants of a room complete control over the quantity of air which is admitted Besides performing this office, the door is made to slide up into the vertical tube, and when thus pushed out of the way, it gives free access to the horizontal portion The outer opening of this is guarded by a strainer of cheese-cloth, or similar material, which excludes dirt, and which can be changed as often as necessary, while on the nearer side of the strainer there is a chamber which can be made to contain perfumes or disinfectants As in the so called Tobin system, the entrance of air is determined by the difference in atmospheric pressure within and without the room, so that the amount admitted will be greater in winter than in summer, and the fire place furnishes a sufficient outlet The ventilator is made by Matthews, of Gloucester, and is of such a size that two bricks must be removed in order to place it in position

The world will owe a lasting debt of gratitude to M Pasteur if he has really discovered how to cure that most horrible of maladies, hydrophobia He believes he has proved it to be curable, and, in support of his assertion he has communicated to the French Academy of Sciences the results of his experiments and researches relating to rabies in the human subject M Pasteur had, in the course of the summer, an opportunity of testing the value of his method on a boy, who had been recently bitten by a dog unquestionably proved to have been mad at the time of the accident The boy had been brought from Alsace by his parents to be placed under the eminent Professor's care He was examined by M Pasteur and two distinguished medical men, fourteen bites were found about his body, and the symptoms of the dreaded disease were already evident in the patient In the space of ten days the child was inoculated no fewer than thirteen times on the same system as M Pasteur has successfully tried with dogs This was three months ago, and until now nothing has occurred in the condition of the patient to shake the operator's faith in his method The boy continues in excellent health, and M Pasteur believes that he is not only safe from hydrophobia caused by the bites of the dog, but also from any bad effects resulting from the animal virus introduced into his system to ensure his safety from rabies

One of the active principles of ox gall has found its way into pharmacy under the auspices of Dr Mortimer Granville, who asserts that he has derived benefit from its use in cases of gouty obesity and dyspepsia The material is tauro cholate of soda, which is prepared by exhausting dried ox-gall with alcohol, and precipitating the tauro cholate by means of ether By evaporation of the ether it slowly separates as a thick treacle like body, which adheres to the sides of the vessel The remaining ether is decanted and the residue dried at a low temperature It is formed into pills, three grains in one pill The taste of tauro-cholate of soda is first sweet and then bitter, it produces in the throat the peculiar sensation of heart-burn It is recommended that the pills be coated with keratine, to prevent them dissolving in the stomach

An interesting ceremony was lately performed at the Castle Dublin, in the presentation of an Albert Medal to Dr C Thompson, of Tyrone Infirmary, in recognition of the heroism shown by him in the practice of his profession, in removing matter which had collected after tracheotomy in a case of diphtheria by sucking it away Colonel Caulfield, of the 4th Royal Enniskillen Fusiliers, having introduced Dr Thompson, the Lord Lieutenant, addressing the doctor, spoke highly of his skill and courage The latter quality, his Lordship observed, had many forms, and the highest form of it was that in which moral qualities mingled with the physical His Lordship added "It is my most satisfactory duty to day, in the name of my Sovereign, to mark you out as one of those who has signally distinguished himself in this respect"

Aberdeen students at home and abroad will hear with regret of the death of Dr D R Pirie, Principal and Vice-Chancellor of the Northern Alma Mater Paralysis was the cause of death The principal was 82 years of age G O M

DOMESTIC CORRESPONDENCE

"PNEUMATIC DIFFERENTIATION"

TO THE EDITOR OF THE JOURNAL

Dear Sir —Having read almost all the articles recently published in this country, on the subject of "Pneumatic Differentiation," as applied to the treatment of thoracic diseases, and having, long since, had some experience with the same *principle* as a therapeutic measure, elsewhere applied to the body, I would offer a few words, which at this juncture may prove salutary—a few lines which may not only be a good thing for the laity (indirectly), but for the profession, directly, as the means of a cash saving, and as a stimulus of thought, in more than one direction It is not my purpose, however, in this article, to controvert any of the positions (though doubting some), assumed by the friends of the "pneumatic cabinet," either as to its efficiency or the *modus operandi* by which its results are achieved On the contrary, it is, in right hands, a good thing My purpose is two fold —to ask of what this new (?) process consists? and how can the "competent" practitioner most readily and economically provide himself and patrons with the same, and at the same time attain or maintain that standard of professional honor, dignity and self respect portrayed by Dr Inglis in his recent address, published in a late number of this JOURNAL?

Let Dr W F Williams, in the *Medical Record*, of Jan 17, 1885, answer our first point "Pneumatic Differentiation," he says, "consists in immersing a patient in a partial vacuum, by removing to a sufficient degree the external pressure of the atmosphere, and at the same time supplying the lungs with air at its normal pressure, and to a greater or less extent impregnated with the substance which it is desired to administer" Very good, that is, analyzed, as set forth in practice, the air in the cabinet is rarefied around the patient sufficiently to, at least, reverse the act of respiration—so that inspiration shall be passive, and respiration active, circumstances governing the degree, and on this very *reversal of normal respiration* hinges the efficacy of the treatment This is the true key to "differentiation" Granted, then, of course, a medicated spray thrown into the denser air will be transported by it towards the less resisting, and elastic lung It will penetrate that lung easier, and to a greater depth, than it would do were the two atmospheres not "differentiated"

We, in the country are very fond of mechanics (necessity being the mother of invention), and certainly the *corpus hominis* affords, at least to physicians, ample suggestions of levers, of triangles, arches, circles, parallelograms of force, of the mechanics of hydrostatics and even of pneumatics, and, most certainly, in the use of the "pneumatic differentiation" process, we are enabled to attain not only the highest state of respiratory gymnastics, but also to most thoroughly apply locally our medicaments And, living 'in this neck of woods," it is very fortunate that Dame Nature has somewhat endowed us with "a mechanical turn," thereby enabling us to answer, incontrovertibly, the second purpose of our communication, viz —to place it in the power of all to provide themselves with the effective means of "pneumatic differentiation'" economically, and without the necessity for, directly or indirectly, partaking of forbidden fruit, and enabling us to live (professionally) as Cæsar would wish his wife to live

Our apparatus (to which all are welcome) may be easily consructed for less than $100 Proceed thus

Make of walnut or other suitable wood an air-tight box or case, 2×8×6 feet. Stand on one end. Fit a plate glass in the front, and back of it hang a good syphon barometer—that any one can make. In the back, opposite to the glass, be sure to construct a door (which you may enter to "correct" your barometer. Ornament to suit taste. Now, hang a second barometer outside of the case. On a stand, placed conveniently, set a tin reservoir that will hold from six to eight gallons of compressed air, which is to be used to atomize your medicated solutions. Next, pass a tube of one inch in diameter through one side of the cabinet, and provide the external end with a flexible tube and mouthpiece, while near the cabinet place a stop cock. Between the flexible tube and the cock, expand the tube and insert a rubber cork of sufficient size to accommodate the nozzle of the atomizer. Last, place a good air pump on the projecting floor of the cabinet, on the same side as the inhaling tube, and provide it with two tubes and so arrange the valves that they may compress the air in the cabinet or in the reservoir, when the pump is operated. These pipes are provided with cocks, so that they may act singly or together.

So much for the apparatus. Now, let us proceed to perform "*pneumatic differentiation*," and thus:

Prepare your inhalant and attach your atomizer to the reservoir, and place its nozzle in the rubber cork. Compare the barometers. Operate the pump till the air in the cabinet is sufficiently condensed, *i. e.*, till the inside barometer shows a rise in the mercury of from eight tenths of an inch to two inches (one inch has not often been used). See that the air in the reservoir is well condensed. Seat your patient in the cozy room, outside the coffin-like box, at the inhaling piece. Now, Dr. Williams's conditions are accomplished, *i. e.*, the patient is "immersed in a partial vacuum"—that is, in an atmosphere rarer than that which he is to respire—rarer by the amount of condensation you have judged expedient to cause in the cabinet. Now, open the cock, let the patient inhale, and the most beautiful mechanical effects—"calisthenic action," corpuscular gyrations and physio-chemico-vital gymnastics, so graphically described by Drs. Williams, Bowditch, Houghton, Smith and Tiegel, will take place.

Your cabinet may be perforated with a hole, surrounded by elastic rubber, through which a paralyzed or atrophied limb may be passed, the rubber serving to bind the member and to exclude the air. Now, reverse the action of the pump, greatly rarefying or exhausting the air in the cabinet. Here, in well selected cases, we will find marked improvement, due to "pneumatic differentiation," by its resultant—a better nutrition. Judiciously applied, this apparatus will not disappoint you. Its cost is far less than that of any device that will do its work equally well, and, paid for once, it will last a lifetime—and, further, in its use no one's rights or interests are violated, and the profession will in no wise become *particeps criminis*, "accessory after the fact," which expression, if somewhat dark, might be elucidated by another, of different profession. And I may close this note with the very last words—words embodying the same sentiments and feelings that thrilled the breast of Dr. Inglis when he uttered them, after having deplored the conduct of the profession in its running after false gods, and pointing them to the resurrection of therapeutics and therapeutists—"Let us all begin now."

Scholium.—A professional brother, just in from Goose Creek (facetiously, I fear), suggests that the cabinet might be made of some other form, and in varied size, adapted to children. I doubt the propriety. Very truly yours,

W. H. Kane King, M. D.

Mt. Sterling, Ill., December 4, 1885.

DEATH-RATE OF PNEUMONIA.

To the Editor of the Journal:

Dear Sir:—Recently the question of the death-rate of pneumonic fever has come up in your Journal. The statements of Dr. Hart (Journal, Oct. 10) regarding the *former frightful* and *now insignificant* mortality attending this disease are but the echo of the words of many other writers everywhere. I have met them over and over again, and have always recognized their harmful nature, and consider your editorial in The Journal of October 31st timely and to the point.

I have collected statistics of 170,692 cases of pneumonic fever, and of these 29,653 died, a mortality of 17.3 per cent. Excluding the 42,467 cases from the German army, with a death-rate of only 3 per cent.—regarding the worth of which I have doubts—and we have 128,225 cases, of which 28,129 were fatal, a death rate of 21.9 per cent. This I regard as being not far from the true proportion. But the important point shown in my tables is the fact that *the mortality varies but little in different lands, or under different plans of treatment, or at various periods of time during the present century.*

Pneumonic fever is, and always has been, the most fatal acute disease with which mankind has had to contend, and we are forced to acknowledge, with regret, that but little has yet been done to diminish its fatality. *It is not now, and never will be, the trifling ailment which it is sometimes represented to be.*

I am, very respectfully,
Edward F. Wells, M. D.

Minster, Ohio, Nov. 21, 1885.

EARLY GONORRHŒA.

To the Editor of the Journal:

Dear Sir:—Dr. E. B. Ward, of Greensboro, Ala., while reporting two cases of gonorrhœa in negro boys, aged 7 and 9 years, respectively, writes: "I would like to ask if any of your readers can report so young a case of gonorrhœa?"

Within a month a lad of *five years* was brought to my office with the following history and symptoms: A neighbor, with whose children the little fellow sometimes played, observed that when attempting to urinate he seemed to be in great agony! She examined him, and at once reported her discovery and suspicions to the child's mother, a widow, of doubtful reputation. The response was, "I know it, but have no money to pay to the doctors."

The Samaritan woman then brought the boy to me In confirmation of my diagnosis of a specific disease, the lad, with downcast eyes, confessed to toying with a dissolute sister of about twice his own age Very truly yours, C M Fenn, M D

San Diego, Cal, Nov 10, 1885

REFLEX CONJUNCTIVITIS

To the Editor of the Journal

Dear Sir—In The Journal of Nov 14, p 538, is an article by Dr N R Gordon on "Chronic Conjunctivitis Dependent upon Diseases of the Intra Nasal Tissues," in which he remarks that no authors have made mention of this fact, and he refers particularly to *reflex conjunctivitis* in association with hypertrophic rhinitis While conjunctivitis by propagation or extension from an inflammation of the nasal tissues is common and familiar to all oculists, the reflected form is *rare*, but in my address in New Orleans (see The Journal, Vol iv, p 705, 1885) I mentioned my observation of *reflex conjunctivitis* as a reflex neurosis of the nose Prior to that time I had never seen it mentioned by any one else Since that time I have seen other cases

Very truly, Jos A White, M D

Richmond, Va, Nov 17, 1885

MISCELLANEOUS

INFORMATION OF IMPORTANCE TO ALL MEMBERS OF THE AMERICAN MEDICAL ASSOCIATION

Membership—Every one who attends an annual meeting of the Association as a delegate pays at that time five dollars, and thenceforward becomes a Permanent Member He continues as such as long as he remains in good standing in the body from which he was originally sent as a delegate As a Permanent Member, he must pay *Five Dollars Annually*, when notified by the Treasurer, whether he attends the meetings of the Association or not Payment of annual dues entitles him to receive the weekly Journal of the Association for one year

Members by Application are such as have not become Permanent Members in the manner above indicated, but apply to the Treasurer for membership, forwarding at the same time to him five dollars and the certificate of the President and Secretary of their State or local society, that they are in good standing in such society They pay five dollars annually thereafter, when notified by the Treasurer Members by application can join the Association at any time, and they receive regularly the weekly Journal

When Dues are Payable—The annual dues from Permanent Members are payable to the Treasurer at the time of the annual meeting of the Association, or immediately thereafter The payment entitles the member to receive the Journal for one year from the following July Payment for 1885, for example, entitles the member to the Journal from July, 1885, to June 1886, inclusive

As some of the members have not yet forwarded to the Treasurer their dues for 1885, they are urgently requested to do so at an early day Having entered upon another year of membership, they are morally and legally responsible to the Association for the payment of their annual dues, having already received for three months of the new year—1885—the Journal of the Association

Subscriptions to the Journal, from those who are not members of the Association, should be forwarded to the office of publication, 65 Randolph Street, Chicago, and not to the Treasurer, but *all payments of annual dues must be forwarded to the Treasurer, Lock Box 1274, Philadelphia*

Deaths—When a member of the Association, who is in regular receipt of the Journal, dies, his family or other representatives are requested to inform the Treasurer at once of the fact

Payment of Dues for Previous Years—As a few members of the Association are still in arrears for payment of dues for 1883 and 1884, they are requested to forward at once to the Treasurer the amounts for which they are indebted to the Association

Transactions of the Association—These annual volumes, thirty three in number, to 1882 inclusive, may still be obtained, with few exceptions, from the Treasurer, at reduced prices The Index to these volumes will be forwarded on receipt of *One Dollar* An opportunity is thus afforded to complete sets of these valuable publications, or to obtain important papers and works which are daily becoming scarce

Richard J Dunglison, M D, *Treasurer*
Lock Box 1274, Philadelphia, Pa

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM NOVEMBER 28, 1885 TO DECEMBER 4 1885

Maj R S Vickery, Surgeon U S A, relieved from the assignment as Acting Medical Director Dept Col, to date the 16th inst (S O 200, Dept Col, Nov 23, 1885)

Capt C K Winne, Asst Surgeon, assigned to duty as post surgeon, Benicia Barracks, and attending surgeon at Benicia Arsenal, Col (S O 109, Dept Col, Nov 20, 1885)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING DECEMBER 5 1885

Hampton Aulick, Surgeon, ordered to "Alliance" as relief of Surgeon G P Bradley

Geo P Bradley, Surgeon, ordered to Naval Hospital, Philadelphia

Joseph Shafer, Asst Surgeon, detached from Naval Hospital, Philadelphia, and ordered to "Minnesota"

J H Gaines, P A Surgeon, detached from Naval Hospital, Washington, and ordered to the "Dolphin"

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE TWO WEEKS ENDED DECEMBER 5 1885

Wyman, Walter, Surgeon, granted leave to attend meeting of American Public Health Association Dec 3, 1885

Benson J, A, Passed Asst Surgeon, granted leave of absence for fifteen days Nov 28, 1885

Armstrong, S T, Passed Asst Surgeon, granted leave of absence for eight days, Nov 30, 1885

Wasdin, Eugene, Asst Surgeon, granted leave of absence for thirty days Nov 28, 1885

Watkins, R B, Asst Surgeon, to proceed to Galveston, Texas, for temporary duty Nov 30 1885

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol V Chicago, December 19, 1885 No 25

ORIGINAL LECTURES

TUMOR OF THE BACK, LOST DRAINAGE TUBES IN AN ABSCESS CAVITY, CHRONIC SYNOVITIS OF THE LEFT KNEE, FLOATING CARTILAGE OF RIGHT KNEE

A Clinical Lecture Delivered at the Mercy Hospital, Chicago,

BY EDMUND ANDREWS, M D, LL D,
PROFESSOR OF SURGERY IN THE CHICAGO MEDICAL COLLEGE AND SURGEON TO THE MERCY HOSPITAL
(REPORTED BY WESLEY G BAILEY)

Tumor of Back—We may have various tumors of the back, especially in this, the lumbar region As appearances are often deceiving, I will not attempt to say what particular kind of growth this one is It has a small inflamed base, and a whitish point at the extremity Sometimes we have a tumor formed by a diseased sebaceous gland or several of them, and gradually growing larger and filling up with pus and sebaceous material, then bursting, and the abscess for a time, seemingly cured, however, these tumors may burrow into the loose connective tissue This tumor is seen to have a small base, a little *punctum*, also is present

If patients with this class of tumors would have their surgeon attend to the growth occasionally, they could be easily cured by distending the punctum, and pressing out the contents The presence of sebaceous substance in the tumor, clearly defines its character I will now make an incision, working a little slowly, to enucleate the sac In some cases they readily separate from the surrounding tissues, and can be removed without much difficulty, but in this case, it is firmly adherent, and I am obliged to use the knife to dissect out the sac We will preserve some of the blood for chemical examination, to add to our record of blood analyses, as a means of diagnosis, after Freund's method

The interior of this variety of sacs usually presents a "whitish" appearance, indicating its cuticular origin The sac in the case under consideration, however, does not present much of that "whitish" appearance, but looks as if it was an ulceration, presenting only a small remnant of cutis vera These tumors, however long they exist, are not generally supposed to be dangerous to life, though they may cause septicæmia or pyæmia, but I never heard of anyone that lost their life on account of such a tumor In cases of this nature I have known them to contain numerous hairs The sebaceous matter in these sacs, resembles, very much, the vernix caseosa of the new-born These cysts may occur on any part of the body, more especially where the corium is thick This patient comes from Pecatonica, Ills, which place has interested some of you, as a locality of bones of the extinct mastadon, which once ranged in herds in northern Illinois This is not a surgical topic, gentlemen, but as you are lovers of anatomical science, it may interest you to recall here, the fact that the gigantic femur of the animal found there, shaped so much like the same bone in man, presents on its huge globular head no trace of the attachment of a ligamentum teres, it proves that no such ligament existed during the life of the quadruped

2 *Lost Drainage Tubes in Old Abscess*—This patient has been here before, once, six years ago, when I excised the head of the humerus, and once last spring, with an abscess over the scapula He now has a fistulous opening over the lower end of the *scapula* The fistula presents that peculiar granular appearance which is pathognomonic of the existence of either dead bone, or some other inert substance that is foreign to the tissues I cannot by probing detect anything of sufficient diagnostic importance through this small aperture, so we will anæsthetize the patient and enlarge the opening This man has had caries of the head of the humerus and glenoid cavity, and a necrosis of the upper border of the scapula In cases of inflammation of the distal or proximal ends of the long bones of the extremities, you will observe in your practice that those of the upper, recover more readily than those of the lower extremity, the cause being the severe friction and pressure on the synovial surfaces of the latter, which bear the entire weight of the body in walking I will now open the abscess and examine its interior I insert my finger and extract two rubber drainage tubes from the cavity You now see why this abscess would not heal Last spring the patient was here for two days, and went home with drainage tubes in the orifices of the abscess It seems that his wife took charge of the dressing on his return home, and must have lost the tubes into the cavity and left them there I will thoroughly search the cavity for any more drainage tubes, or other foreign articles

There is a pendulous pocket present in the abscess, that I will connect with the larger cavity, further down You will please bear in mind that those exuberant granulations so often present in certain wounds and abscesses, generally indicate the presence of some foreign body in the tissues, it may be bits of clothing, bone, or wood, etc , etc , however, a bullet seems to act differently, the salts of the metal to a certain extent preventing their formation I have now dressed the wound antiseptically, and am certain no stray tubing is left in the cavity of the abscess

3 *Chronic Synovitis of Left Knee* —Here is a boy that is said to have a chronic inflammation of the knee-joint, due to an accident, which for a time, produced pain without much swelling For some time the patient was able to go around with but little discomfort He awoke one night and complained of pain in the part, was supposed to have hurt it against the bed, but was known to have received a kick on the knee some time after, making the inflammation much worse His father, a blacksmith, has constructed a modification of Sayre's apparatus for making extension, that meets the indications in the case very nicely

This apparatus instead of having the key at the side, (like Sayre's) for controlling the degree of extension, has a flat piece of steel, with buttons upon it, that fit into holes in a corresponding piece of steel above, and when these are in place, a small band of metal slides over the spliced joint of steel, and thus holds the mechanism firmly in place At the upper, as well as the lower ends, these flat pieces of steel are strongly attached to bands of brass, that, form, when in place, complete circles around the boy's leg and thigh These circles are made with a hinge at one part of their circumference, and at a point directly opposite, a slot has been cut in one end, that fits over a small staple on the other end, and when adjusted, a little loop of brass slides down over the joint thus formed, firmly securing it Sayre puts strips of adhesive plaster all the way round the ends of the apparatus, to prevent any sliding motion of the appliance

This case of chronic *synovitis* is a result of one or two acts of violence, and the irritation caused by the patient running around considerably upon it He does not belong to a tuberculous family The mechanical irritation of constant walking prevents the knee from making a spontaneous recovery, which it would accomplish in most cases, if not predisposed to tubercular infiltration In rheumatic synovitis, we do not make use of extension, but in this case there is no rheumatism and extension is necessary In this case they have used the ordinary diachylon plaster to hold the apparatus in place, do not use it in your practice for such purposes, for you will find that the common rubber plaster is much better In walking, this patient should not allow the lame leg to support his weight, but should keep that foot off the ground entirely

4 *Inflammation of Ligaments and Subcutaneous Tissues of Internal Malleolus* —This little girl has an injury of her foot, caused by an accident, probably jumping out of bed There is a large red swelling on the inner *malleolus* It is not *synovitis*, for it does not hurt the child when I press the synovial surfaces together, and made slight movements under pressure There may be a slight inflammation of the ligaments, for she resists a little when I put them on the stretch Mainly, however, this is an inflammation of the skin and subcutaneous tissues A good treatment is to apply to the part iodine and glycerine, one part of iodine and three or four parts of glycerine and water I like better, however, some simple astringent lotion, *e g*

℞	Zinci chloridi	gr xxx
	Acidi carbolici cryst	ʒiss
	Aquæ	f ℥viii

M

Let her take a few folds of linen or absorbent cotton saturated with the solution, and apply to the parts, and as soon as the moisture evaporates apply more There are a great many preparations that could be used to advantage in cases similar to the one before us Solutions of the following substances are useful Chloride of iron, sulphate of copper, nitrate of silver, tannic acid, sugar of lead, bichloride of mercury, alum, etc etc Several of these preparations are apt to become irritant as the solution concentrates by drying upon the skin, for instance, chloride of zinc, nitrate of silver, and bichloride of mercury—they may at last have even a caustic effect Hence the skin should be washed with soap and water once in forty-eight hours, when such solutions are used As this patient will not be under our control, it will be safe to use a solution of alum, which is not caustic in any strength

The *cellulitis* in these cases has been said of late to arise from malaria, but whether it is so or not I cannot say

5 *Chronic Synovitis of Right Knee with Floating Cartilage* —Here is another patient with an inflamed knee, which is also the result of an accident A horse kicked him there two years ago, though it did not hurt him much It began to swell, however, almost immediately, and has remained in a swollen condition for the greater part of the time since There is not much pain in walking or standing, but when the leg is flexed a little more than usual, he has considerable pain It is a case of *synovitis*, gentlemen Now, how do we know it is *synovitis?* Because, in the first place, there is a surplus of the synovial fluid in the cavity of the joint, secondly the *patella* is slightly elevated, thirdly, it hurts him to bend the joint Motion is limited on account of a thickening of the ligaments It is essentially a nearly pure *synovitis* The patient received another blow on the same knee, about a month ago, but this last injury was not sufficient to produce a swelling A piece of cartilage was dislodged by the first contusion, and was thereby transformed into what is technically termed a "floating cartilage" These loose bodies are supposed to be formed by the breaking off of pedunculated growths of cartilage, which exist in many knee-joints "Floating cartilages" are very apt to cause considerable trouble When lying in some pocket or fold of the synovial membrane, they are harmless, but when, from some sudden twist or movement, they catch between the bones, they cause violent pain, and compel the patient to lie or sit down, until he can carefully dislodge the treacherous

lump from its painful position Frequent repetition of the accident produces *synovitis*, and may even terminate in suppuration and *caries* of the joint Hence, in bad cases, operative procedures are necessary to extract the cartilage On inspection of this patient, you can distinguish a prominence, instead of the usual depression, each side of the *patella* In case of the removal of a "floating cartilage" according to the old plan, without antiseptics, about one case in seven died Careful antiseptic precautions must be taken in the operation of extracting a detached piece of cartilage As this patient will remain in the hospital, we will have him go to bed, and will secure immobility by extension with a weight and pulley Later in the case, an extension splint will be adapted to his leg, and a cure probably be attained My practice is to use a straight tin or brass splint, concave, so that it will fit the limb nicely, and provide it with extension bands, as explained to you in a former lecture

6 —*Fracture of Forearm* —This boy has a fractured forearm, the injury occured five weeks ago, but we told him to return occasionally to have the arm dressed The day I attempted to reduce the fracture, I experienced a considerable difficulty in approximating the ends of the broken *radius*, I was obliged to introduce a *tenotome* to sever the tissues that had become entangled with the ends of the bones, in order to have a better apposition of the fragments, which enables me in a great measure to overcome the difficulty When the sharp ends of the fractured bone imbed themselves thoroughly in a muscle or other organ so as to have a stratum of firm tissue separating the fragments, no union will take place I thus succeeded in obtaining a reduction of the fracture There is some slight irregularity of both bones present in this case, but the occurrence most to be feared is the loss of rotary motion, consequent upon the action of the *pronator quadratus* in drawing the ends of the fragments toward the centre of the forearm, so that they strike, instead of rolling freely past each other in rotation In the present instance the rotation is good We will, however, apply the splints for another week, as the parts are weak and need protection in case of accidental falls Absolute perfection in all respects is rarely obtained after fracture of the forearm, but by diligent attention you will obtain good and useful members in the great majority of cases

---

PNEUMONIC ABSCESS[1]

BY EDWARD F WELLS, M D ,

OF MINSTER OHIO

The daring boldness and, in some instances, the brilliant success, with which destructive processes within the lungs have been recently attacked by the surgeon lend, together with the inherent importance of the subject itself, an absorbing interest to my theme The advances made by these pioneers upon a hitherto untrodden field justly challenge the admiration of the professional world, and I fear that only adverse criticism awaits any one who attempts to run counter to the now popular current in the management of pulmonary abscesses Yet the principal object of this communication is to call attention to the well known, but often illy appreciated fact that, not only a few, but many of these cases recover without an operation, and that, a diagnosis having been made, it does not always follow as a corollary that an external evacuation of the purulent collection is the sole, or except in rare cases, the most appropriate remedy

I desire, however, that my position be not misunderstood That operative measures are necessary and advisable in some infrequent and properly selected cases I am not only free to admit, but also to advocate Indeed, I have myself assayed the operation in one case, and proposed it in another—both of which recovered by the powers of Nature and are living and well to day I have incorporated in this paper the histories of quite a number of cases which have recovered under expectant and medicinal treatment, and I think that the observation of every one present will bear me out in the belief that I do not stand isolated in my experience in this particular On account of the vastness of the entire subject of pulmonary abscesses I will confine my remarks to those occurring as a consequence of pneumonic fever

That the issue of pneumonic inflammation in abscess is a rare event is affirmed by the vast majority of writers,[1] although I quite agree with those who consider its rarity as having been generally overrated [2] On the contrary it certainly is not so common as the older authors[3] believed, for it is clear that they must, in many instances, have mistaken tubercular vomicæ and post mortem breaking down of tissue, for pneumonic abscesses

Laennec,[4] with his vast experience, extending over a period of twenty years, and after having made several hundred dissections of pneumonic subjects, met with abscess only five or six times Andral,[5] with an equal experience, met with but one case in an adult and two cases in infants Bronsius,[6] with extensive facilities for observation, observed but a single case, and that was caused by a foreign body Chomel, in seventeen years' pathological work, saw but two cases Trousseau,[8] in a quarter of a century's practice, had never encountered a case, although he then met with two within a week Bouillaud[9] met with only two or three cases Swett[10] says that he never encountered an example, although in another place[11] he gives the details of a case Elliotson[1] saw only two cases, and Gendrin, Honore[3] and Romkaud[4] met with one each Of 319 fatal cases occurring in Washington in 1878, abscess was found but once[5] Sturges[6] denies that abscess is ever a consequence of the pneumonic process[7] On the other hand Baillie, who probably correctly reflected the opinions of British physicians of his day, considered abscess of the lung as of frequent occurrence, and this view was shared by Crichton,[8] Cullen,[9] Heimly,[10] and others Stokes[11] and Copland[12] content themselves with the conservative statement that it is a comparatively uncommon event, but that they believe its rarity to have been overestimated Mercier[13] observed abscess four times in seventy cases of senile pneumonic fever, Flint[14] met with it four times in 133 cases of adults, and Delafield[15] twice in 123 fatal cases of all ages I have myself met with abscess nine times in 413 cases of pneumonic fever This does not include cases of gangrene, with abscess, nor those in which a foreign body was the cause unless pneumonia was actually present Excluding the cases in which a foreign body was the prime cause and the number is reduced to seven

---

[1] Read before the Chicago Medical Society Dec 7 1885

[1] Laennec Diseases of the Chest trans by Forbes N Y 1830 p 205 Andral Med Clin trans by Spillan Phila 1843 Vol II p 180 Chomel Vorlesungen über Pneumonie Leipzig 1841 p 58 Eberle Prac Med Phila 1831 Vol I p 286 Rokitansky Path Anat Phila 1855 Vol IV p 70 Watson Prac Physic Phila 1845 p 573 Williams Cyclop Prac Med Vol III Gerhard Dis Chest Phila 1860 p 188 Swett Dis Chest N Y 1856 p 69 Spillan Op cit p 180 Dietl Der Aderlass in der Lungeuentzundung Wien 1848 p 69 Ziemssen Pleuritis u Pneumonie in Kindesalter Berlin 1862 S 163 Sturges Nat Hist Pneumonia London 1876 p 117 Jurgensen Ziemssen s Handbuch der Spec Path Bd V Leipzig 1877 S 146 Green Quain s Dic Med N Y 1883 p 859 et al

Cullen Prac Phys Phila 1792 Vol I p 187 Heimly quoted by Laennec Op cit p 207 Crichton quoted by Laennec Op cit p 207 Stokes Diseases of the Chest Dublin Copland Med Dic N Y 1855 Vol II p 882

[3] Aretaeus Galen Tulpius Bontius Morgagni

[4] Op cit p 205

[5] Op cit p 180

[6] Hist. des Phlegmas Chron T II p 111

Dic de Méd T XVIII p 239

[8] Clin Med Phila 1873 Vol I p 650

[9] Dic de Méd T XIII p 364

[10] Op cit p 69

[11] Op cit p 03

If every case of pneumonic fever accompanied by purulent expectoration were considered as one of pulmonary abscess, we would find plenty of them If, however, to complete or confirm the diagnosis it be required to demonstrate the existence of a cavity by means of unequivocal signs and symptoms, in the case of the living, or by an autopsy in the case of the dead, they will be encountered much less frequently But even the evidence of the dead house must be accepted with caution, because an inflamed lung in the stage of gray hepatization is often exceedingly friable and will readily break down under very slight pressure, drawing or jarring Such a lung, after being roughly handled, may exhibit, at points, the strongest suspicions of abscess without any being actually present

Laennec[16] long ago called attention to this fact in the following words "When we forcibly drag from the cavity of the chest an inflamed lung attached to the costal pleura by old cellular adhesions, it frequently happens that the parts most infiltrated with pus give way under the fingers, or, without suffering any external wound, yield internally under the pressure so as to form a soft sanious mass which an inattentive observer might mistake for a collection of pus "

Two general classes of abscesses may be mentioned the encysted and the non encysted It is probable that all pulmonary abscesses would be bounded or lined by a limiting membrane were time enough allowed for its formation[17] This membranous wall bears the same relation to the abscess that a granulation surface does to an ulcer It prevents absorption of noxious materials, continues for a time to secrete pus, and finally contracts and closes the cavity In non-encysted abscesses the line of demarcation between the purulent matter and the intact tissue may be sharp and well defined or the contrary—usually the latter—and after evacuation the walls may be smooth and regular or uneven, ragged and shreddy

Pneumonic abscesses vary in size from the most insignificant dimensions to those occupying the entire lung

Chomel[1] saw an abscess which was six inches long, four inches wide and three inches thick Stokes[2] records a case of very extensive abscess Malloy's[3] *patient spat out, at one time, over* half a pint of pus Sedgwick[4] removed with a trocar more than a quart of pus at one, and three pints at another time from the same patient[5] In one case an abscess as large as the fist was found in the right lung,[6] and in another more than half the lower lobe of the right lung was an abscess cavity, with a second abscess at the base of the left lung[7] Fowler[8] reports a case in which the abscess occupied three fourths of the right lung—the whole of the middle and lower lobes being hollowed out—and which contained three pints of pus Hourmann and Dechambre[9] observed a case in which the abscess occupied the greater part of an entire lung In a patient who died in the Charleston City Hospital the entire left lung was disintegrated, presenting a honeycombed appearance, and filled with pus[10] In another patient who died in the Marine Hospital, on Bedloe's Island, the entire right lung was found to have totally "disappeared and was replaced by a cavity filled with gray purulent fluid "[11] Radek[12] evacuated, by incision, a quart of pus from the right lung Sutton's[13] case of operated abscess involved the entire lower lobe of the left lung[14]

According to most writers[15] abscess of the lung is oftenest met within the upper lobes but, judging from the published cases of others and my individual experiences, I am convinced that this is an erroneous opinion, and that the lower and middle lobes—those in which pneumonic consolidation oftenest occurs—are most frequently affected They are usually single but may be numerous, and many cases are on record in which abscesses have been found in both lungs[16]

Abscess of the lung is the result of excessive cell production in the parenchymatous tissue, leading to innutrition, softening and destruction of the supporting and form giving structures of the lung[17] Even since Cohnheim[18] demonstrated the escape of the white blood corpuscles through the unbroken walls of the capillaries, pathologists have very generally acknowledged that the formation of pus is a compound process, consisting in an escape of blood plasma and leucocytes from the blood vessels, an abundant proliferation of the cellular elements in the surrounding tissues, and finally the breaking down and liquefaction of all these structures In the lung minute foci of softening occur, and the full size of the abscess is attained by the breaking down of the barriers between these and their coalescence

In many cases of pneumonic fever there comes a time when the supporting structures of the affected portion of lung have become greatly softened and weakened by this cellular proliferation, deposition of fluids and leucocytes and lack of proper nutrition

---

[1] Prac Med Phila 1844 p 754

[2] Ranking's Abst No 8, 1849 p 48

[3] Quoted by Andral Op cit. p 180

[4] Ranking's Abstract No 8 1849 p 48

[5] Report Board of Health D C 1878 p 115

[6] Op cit p 117

[7] Morb Anat p 70

[8] Quoted by Laennec Op cit p 207

[9] Op cit p 187

[10] Quoted by Laennec Op cit p 207

[11] Quoted by Copland Op cit p 882

[12] Op cit p 882

[13] Bull de la Soc Anat. T XII p 279

[14] Prac Med Phila 1868 p 179

[15] New York Med Jour July 1865 p 68

[16] Op cit p 205

[17] Solon Arch Gén de Méd 1st S T XXVI

[1] Vorlesungen u Pneumonie p 37

[2] Dublin Jour Med and Chem Sci Mar 1883

[3] Lancet N Y Ed 1850 Vol I p 291

[4] Ibid 1862 Vol II p 173

[5] This I believe to have been the first case submitted to operation

[6] U S Marine Hospt. Repts 1883 p 243

[7] Ibid 1883 p 245

[8] Lancet N Y Ed 1850 Vol I p 294

[9] Arch Gen de Med T XII 1836

[10] U S Marine Hospt Repts 1884 p 191

[11] Ibid 1881 p 145

[12] Centralb f Chirurg 1878 No 44 p 750

[13] Chicago Med Rev Mar 5 1881 p 112

[14] No attempt has been made to make this list complete

[15] Jurgensen Op cit p 146 Green Op cit p 859 et al

[16] Lombard Gaz Méd 1835 p 679 Chomel Op cit p 47 U S Marine Hospt Repts 1883 p 245

[17] Rindfleisch Path Histol Phila 1872 p 431

[18] Virchow's Arch Bd XL S 27

No great flight of the imagination is required to conceive that under such circumstances the integrity of the parts hangs upon a very brittle thread Abscess is imminent and may be brought about by even trivial causes For many years I have kept this contingency steadily in view in the management of my pneumonic patients as they approach the period of crisis, and for some time thereafter I attempt to keep the parts as quiet as possible, easing the powerful and convulsive cough, forbidding all rapid and forcible movements of the patient, and even practicing percussion with lightness and care

Of course, there are other and more efficient agencies besides local injury which are instrumental in the production of an abscess I am well aware that in those cases in which death of the tissues has occurred, no amount of care can prevent their destruction, and that in those cases at the other end of the pathological scale, in which the circulation remains good and the connective tissue is not imperiled, no amount of neglect or rough handling can cause an abscess to form It is not to either of these classes to which my remarks are applicable, but to that middle and larger class, in which the chances for or against local destruction are more evenly balanced You may inquire, and with reason, why it is that I can produce such a large array of abscesses if care in this particular is an important point, and if I exercise it in my practice as I have stated I will reply to this by saying that all of my cases, save two, came to me second hand Of 297 cases of pneumonic fever, treated solely by myself, only two eventuated in the formation of an abscess

Pneumonic abscess has been described as a slow process, requiring a long time for its completion,[1] but it only requires a cursory examination of the published cases to be convinced that this is an erroneous proposition Personally, I do not believe that the pneumonic process is ever at a stand-still, there is a constant change, and when the acme is reached repair or destruction begin at once and usually pursue a rapid course Unless the whole of the inflamed portion contribute to form the abscess, the parts not destroyed and not in immediate proximity to the walls of the cavity usually clear up and regain their functions in the ordinary length of time Bolles', however, records a case in which there was no perceptible improvement in the general or local conditions until after the evacuation of the abscess on the forty-first day

Pus here, as elsewhere, may be absorbed and the abscess disappear, but this can only occur in minute collections The absorbents may, however, take up the serum, and leave the cellular elements behind as caseous mass This residuum may remain a long time dormant, but it is always an element of danger and may at any time imbibe moisture, soften, liquefy again and pursue an ordinary course One of my cases was of this kind

Case I —Mrs I , aged 25 years Two and one half years ago she had an attack of pneumonic fever, affecting, locally, the base of the left lung From this she never entirely recovered , cough, fever, night sweats, emaciation and prostration continuing for many months Gradually these symptoms subsided and she regained a portion of her former weight and strength The cough left her entirtly and she considered herself well, although she continued pale, easily fatigued and short of breath on the slightest exertion Last August her cough returned, with fever and pain in the left side For a week there was only a scanty mucus expectoration, but on the seventh day she brought up, in a few moments, nearly half a pint of thick, creamy pus At first the discharge was quite free, amounting to three or four ounces in the twenty four hours, but the quantity rapidly diminished to one or two drachms upon rising in the morning The discharge was much more easily effected when she lay upon the right side Previous to the discharge of the abscess there was dulness on percussion and absence of the respiratory sounds at the base of the left lung The heart was not displaced and there was no bulging of the intercostal spaces After the abscess burst there was tympanitis and loud gurgling Improvement rapidly followed and she is now almost well She coughs and expectorates a muco purulent matter occasionally, but sometimes goes a week without doing so There is yet slight dulness and a weakness and tubularity of the breathing in the affected area, with moist râles upon forced inspiration The left side is three fourths of an inch less in measure than the right A curious point in this case is the fact that the left breast ceased secreting milk—the patient was nursing a ten months' child—whilst the right was unaffected

By far the most common, and I am sure the most desirable, termination of a pneumonic abscess is by an evacuation of its contents through the bronchi In a certain proportion of large abscesses, the opening is into one or more of the neighboring cavities or through the the thoracic walls

Solon[1] reports a case in which the discharge occurred into both the pleural and pericardial cavities, and Pel gives a case which proves that the pus may sink down in front of the heart in such a way as to simulate a purulent pericarditis, an illusion which may not be dispelled by an operation In a case in which a large abscess occupied the right lung, the pus, after penetrating through the layers of the pleura and diaphragm, gravitated downward in front of the colon and formed a small cavity to the front of the cæcum[3] In yet another case, in which the right lung was also the seat of the abscess, the pus had made its way into the sheath of the psoas muscle and finally appeared as a fluctuating non inflammatory swelling in the groin[4]

Subsequent to the discharge of the abscess it may pursue one of several courses It may remain unaltered until the death of the patient It may become lined with false membrane and surrounded by a hard cellulo fibrous wall and remain permanently Or, finally, it may contract and become obliterated[5] When an abscess has existed for a long time, it approaches as nearly as possible the circular form, and its walls are lined with a smooth secreting membrane[6] When the abscess is of the largest size, its perfect obliteration is, perhaps, impossible, but when of more moderate dimensions this may occur, although with difficulty After its closure, the former site in the lung is marked by a puckered cicatrix If it has been a large one, the walls of the chest are depressed over its former seat, and if situated near the surface and with pleuritic adhesions, there may be a decided depression of the external soft parts[8]

---

[1] Tyndale St. Louis Med and Surg Jour Apr 1878 p 225
Boston Med and Surg Jour Feb 3 1881 p 106

[1] Op cit
[2] Perliner Klin Wochenschr 1884 No 8 p 113
[3] U S Marine Hospt Repts 1882 p 229
[4] Ibid 1883 p 243
See a remarkable case by Stokes Dis Chest p 314
[6] Rokitansky Op Cit p 71
Copland Op cit. p 882 Gerhard Op cit p 188 Rokitansky Op cit p 71
[8] Rokitansky op cit p 71

CASE II —Mr J B , aged 57 years, was attacked at Christmas, 1876, with pneumonic fever, with consolidation of the entire left lung Crisis occurred on the eighth day, and a few days later he began sitting up, yet his cough, instead of diminishing, became more severe, convulsive and racking After a few days fever returned, with profuse perspiration, jaundice, anorexia and vomiting Expectoration had been scanty and muco purulent until January 12, when it became copious and almost wholly purulent The symptoms improved somewhat after this, but after a couple of days the expectoration suddenly ceased, and he became worse than before I saw him for the first time at this juncture The pulse was rapid, temperature elevated, skin bathed in perspiration, breathing embarrassed and expression anxious Under the left clavicle, over a space as large as the palm of the hand, there was dulness on percussion, tubular breathing and moist rales around the circumference, and absence of expiratory sounds in the central parts Two days later, with free purulent expectoration there was heard, on deep inspiration, gurgling at the spot where respiration was before absent When the patient lay upon his back tympanitis was well marked, but was somewhat obscure when he assumed an upright posture The abscess discharged for various periods at irregular intervals, with frequent suppressions When the discharge was free his condition was much ameliorated, but when it became scanty or suppressed hectic symptoms at once supervened The discharge became more and more regular, and the patient improved so much that he was able to leave his bed by the first of March, and was quite well in four months more A month ago I examined this gentleman, and now, nearly ten years after his illness, auscultation and percussion afford no evidence of any impairment of function Between the first and second and between the second and third ribs, in front, however, the soft parts are considerably depressed and contrast markedly with the condition on the right side

Abscess is likely to follow the pneumonic process in all sorts of patients—the weak and the strong, the old and the young—none escape, and none are peculiarly predisposed

Friedleben[1] considers infants more prone to abscess than adults Billard met with this condition in a child only twenty days old, and Depaul[3] has published a case in which the abscesses formed during intra uterine life Mercier[4] and Hourmann *et* Dechambre have detailed cases in octogenarians, and one of my patients, only recently recovered, is 74 years of age

CASE III —Mr B H , a retired farmer, aged 74 years, was attacked about the first of February, 1885, with pneumonic fever, with hepatization of the base of the left lung In ten days he was thought to be convalescent, yet he did not improve His cough continued and became more severe and convulsive He lost weight and strength from day to day I first saw him on March 16 He had continuous fever, with evening exacerbations , very profuse and effusive perspirations , a severe, paroxysmal and distressing cough, which was often accompanied by vomiting expectoration of frothy mucus , pain of a heavy, expansive and dull character in the left side , dyspnœa on exertion, etc , etc There was dulness over the lower lobe of the left lung, with bronchial breathing and moist râles along the upper border of this area, and absence of all respiratory sounds at the extreme base There were no changes in the external soft parts, and the heart was not displaced He had diarrhœa, his urine was scanty and deposited a copious sediment of urates, and his feet and legs were œdematous A puncture with the hypodermic needle in the eighth interspace in the axillary line revealed the presence of pus at a depth of an inch and a quarter An operation was proposed, but was declined by the patient The puncture with the needle gave rise to a severe paroxysm of coughing, ending by bringing up a small quantity of pus which was slightly streaked with blood The patient and attendants united in declaring that no such sputa had been previously seen The expectoration now became purulent, and increased so much that on the following day he brought up about four ounces of creamy pus, which was interspersed with small and dark sanguinolent masses, and had a fetid smell Evidences of a large cavity were now abundant and conclusive After a week rapid improvement took place The fever declined, the exhausting perspiration ceased, appetite and digestion improved, the diarrhœa was checked, the urine became free and clear, the œdema disappeared, and he gained in strength and spirits The purulent expectoration, which was occasionally fetid, continued, in diminishing quantity, for two months, when it ceased to appear regularly I saw this gentleman on October 30 There is still dulness at the extreme left base, with loud, harsh and cavernous sounds on deep breathing and almost entire absence of all sounds with ordinary respiration A deep, forcible inspiration brings on a peculiar convulsive cough and the expectoration, with much effort and gagging, of a small quantity of muco purulent matter He is now the very picture of robust health in old age, considers himself perfectly well, and weighs 190 pounds, which is more than he has done in thirty years

The symptoms of pneumonic abscess vary much in different cases In many the acute symptoms of the initial fever decline and the patient appears to be on the highway to recovery, when, at a variable time afterwards, the remaining symptoms are aggravated and new ones appear upon the scene The cough, which had not ceased, increases in severity and becomes more frequent and paroxysmal The fever, which may have nearly or altogether disappeared, is again a prominent feature, especially in the evening Profuse perspirations follow the febrile exacerbations The spirits decline, the expression is anxious, the strength fails, the patient again takes to his bed, and altogether he comes to a most alarming state It must be admitted, however, that in some cases the symptoms do not point very clearly toward pulmonary suppuration, and in others the abscess remains entirely latent, and is not suspected until its discharge or an autopsy discloses its presence The formation of pus in the lungs is not often accompanied by signs, as in other situations,[1] yet most of these patients will be found very susceptible to the influence of cold, and complain of feeling chilly with the least draught of air, or even when well protected from cold This was true of one of my patients

CASE IV —B S , a farmer, aged 34 years, was taken, October 30, 1876, with pneumonic fever, locally affecting the lower two-thirds of the right lung The malady ran an ordinary course, and by the tenth day there was no fever and but little cough Shortly after this the cough increased in severity, and fever with profuse perspirations came on The knees were always cold and they could not be warmed His appetite, which had become pretty good, failed, he was restless and sleepless, was delirious at times, and became greatly prostrated Auscultation and percussion revealed nothing decisive, although it is noted that at the level of the nipple, in the axillary line, the respiratory sounds were almost absent and at this point forcible percussion was illy borne The temperature ranged between 99° and 101°, and the pulse at about 100 On the thirty first day of his illness the abscess evacuated itself through the bronchi No reliable information could be obtained of the quantity of pus expectorated on the first day, but on the second it was about two ounces The quantity gradually lessened, and ceased within a month After the evacuation of the abscess there was obtained abundant evidence of a cavity The patient recovered entirely in about two months, but died two years later from acute pulmonary congestion, brought on by excessive exposure to intense cold At the autopsy the lungs were found intensely congested—almost black—and the bronchi full of watery fluid In the middle lobe of the right lung, near its upper and outer border, there was a fibrous nodule of the size of a cherry, from which radiated fibrous bands in different directions

Previous to the opening of the abscess, the cough, as before stated, is very severe and convulsive resembling the paroxysms of whooping cough[1] Afterwards the character of the cough is altered, by attaining a quality peculiar to itself, which may be vaguely described as having a high pitch and a metallic quality and conveying the idea that, although the sound originates in the lungs and the larynx, yet it is greatly reinforced by reverberations in the naso pharyngeal cavities This applies particularly to basic cavities with but scanty expectoration If the cavity is located in the apex, or if the discharge is very free and easily affected, these qualities are not so marked If the cavity is large and empty and communicates with a large bronchus, the cough is cavernous in character My impression is that not[2] many of these abscesses open into large bronchi, for the reason that they are usually peripheral, rather than central

---

[1] Arch f Phys Heilk 1847 S 66
Mal des Enfans
[3] Bull de la Soc Anat T XII p 273
[4] Op cit
[5] Op cit

[1] Sturges Op cit p 60

The expectoration has a peculiar turnipy flavor,[3] and at first is usually fœtid, but after standing awhile it sometimes acquires a rather pleasant odor, resembling that of cowslips [4] The odor may be gangrenous from cavernous decomposition, without there being any sphacelus as was demonstrated by autopsical examination in Pereira's[5] case The breath may be perfectly sweet, or constantly or only occasionally offensive [6] It is, to my senses, in many cases, peculiarly sweetish and sickening If the pus becomes decomposed in the abscess cavity and the respired air has free access thereto, it will certainly be fœtid, otherwise not

When the discharge of pus occurs through the bronchi, it is likely to come on suddenly and is more or less profuse according to the size of the abscess, the resiliency of its walls and the size and potency of the opening The matter is of a creamy consistence, a yellowish or greenish color, and may be mixed with small quantities of blood and elastic tissue The discharge is often suppressed for a longer or shorter time when, suddenly, especially after changing the position of the body, a more or less copious expectoration of almost pure pus takes place The amount expectorated in twenty four hours varies from a very small quantity to more than a pint I am satisfied that the very powerful cough, often accompanied by vomiting, met with previous to the evacuation of a pulmonary abscess, is an efficient agent for the rupturing of the walls of the cavity and the discharge of its contents This was exemplified in one of my cases

CASE V —N J , female, aged two years About the first of February, 1884, whilst eating peanuts, she choked, coughed severely and spasmodically for several minutes, lay down to sleep and awoke in an hour with fever and a painful cough After a few days she improved, but soon relapsed again Exacerbations, followed by temporary improvement, continued for more than two months, when she came under my care At this time the cough was not frequent, but it was very severe and convulsive, and almost always ended in emesis It very much resembled whooping cough, for which it had been mistaken She had irregular febrile exacerbations, which were followed by profuse perspiration and was much emaciated There was dulness, not flatness, over the entire left side of the chest as high as the second rib, and in this area the respiratory sounds were everywhere tubular, but weak, except above and external to the nipple, in the axilla, and under the scapula, where they were entirely absent The heart was not displaced and there was no intercostal bulging I was informed that a few days previously, the skin above and to the left of the nipple had been reddened, swollen and painful, but this had disappeared I had not been informed of the origin of the illness, and abscess being diagnosticated, I determined to operate On April 11th, the child was put under the influence of chloroform by Dr Costello, and a long hypodermic needle was thrust into the lung just external to the angle of the scapula and pus found at a depth of an inch and a quarter Making an incision down to the pleura, it was found by Fenger's[1] test that adhesions had not formed In the axilla, the abscess was found somewhat nearer the surface, but here adhesions were also absent For some reason pus was not obtained anteriorly I now made a number of punctures about the seat of my first incision, hoping that adhesions would follow, and postponed the completion of the operation Absolutely no ill effects followed I was now, for the first time, informed of the peanut incident, which threw a flood of light over the entire case, and which explained why the abscess lay so deep and the absence of adhesions Six days later, after an exceptionally severe paroxysm of coughing, she expelled a piece of peanut nearly one fourth of an inch in each of its dimensions, together with more than an ounce of creamy and fœtid pus Signs of a cavity, incompletely emptied, were now manifest After this she improved very rapidly and was quite well in six weeks At the present, there are no signs to indicate that she had ever been the subject of a pulmonary abscess

Aretæus,[2] Galen,[3] Bontius,[4] Tulpius[5] and others of the ancients, speak of the expectoration of pieces of lung tissue in cases of abscess, but at this late day their observations must be accepted as somewhat apochryphal In one of my cases the patient presented me with a small piece of a fleshy substance which he was sure was a part of his lung The microscope proved it to be a portion of beefsteak which he had eaten the day before

CASE VI —Mr J B , a farmer, aged 66 years, was attacked with pneumonic fever, affecting the right lung, in February, 1881 After the eighth day the acute and urgent symptoms declined, yet the cough continued and he lost flesh and strength After having been ill three weeks he spat out, at once, a considerable quantity of pus Purulent expectoration continued daily, in diminishing amounts, for more than three months, and occasionally for a year I saw him first at the end of a month and readily detected a cavity at the base of the right lung When the nature of his case had been explained to him, he said that he understood it thoroughly, and the next morning he had ready for my inspection a piece of his lung, which he had expectorated, and which, on examination, proved to be a piece of beef steak In the case of this patient there was sometimes fœtor of the breath in the morning, but it always disappeared after free expectoration After a short time he began to improve, and in my experience I have never seen such an appetite developed in a convalescent patient as this man displayed He literally dined hourly In August, and again in November, he had hæmoptysis He is now a hale and hearty old man, yet the peculiar cough is still developed whenever he catches cold, although I can detect no sign of a cavity

The diagnosis is not very difficult in most cases if attention be given to the foregoing symptoms, and a careful physical examination is made If the abscess is not evacuated, of moderate or large size and superficially located, there will be found dulness on percussion, with diminution or absence of the respiratory sounds In the neighborhood will be noticeable the ordinary signs of inflammatory consolidation If the abscess lies deeply or is small these characteristics may be greatly modified or absent, and under these circumstances the diagnosis must be based largely upon the symptoms, and will sometimes remain doubtful The hypodermic or aspirating needle may be safely and advantageously used for diagnostic purposes After the abscess has discharged its contents the ordinary signs of a cavity will be present In this connection I must again insist that great importance should be attached to the history and symptoms of obscure cases—cases in which the physical signs are insufficient in themselves to lead to a diagnosis In one of my cases I was compelled to rely exclusively upon the symptoms for diagnosis

---

[1] Williams Lancet, N Y ed Vol II p 3
[2] Cockle Lancet N Y ed 1857 Vol I p 346
[3] Sedgwick Lancet N Y ed 1862 Vol II p 173
[4] Williams Op cit.
[5] Lancet N Y ed 1852 Vol II p 215
[6] Cockle Op cit p 346

[1] Am Jour Med Sci Oct 1881 p 386
[2] De Caus et Sig Acut Lib II c i
[3] De Loc Affec Lib V c iii
[4] Med Ind , 1631
[5] Obs Med 1641

CASE VII —Mr J S , a farmer aged 42 years, was engaged during the first week in January, 1880, in hauling clover Whilst at work he took a severe chill, followed by all the ordinary symptoms of pneumonic fever At first the entire left lung became hepatized, and on the third day the base of the right also, with great dyspnœa Resolution occurred in due time in the left lung but not in the right The cough continued and became more powerful and paroxysmal, deep breathing caused pain and cough, evening fever and perspiration were marked, and the patient became greatly prostrated and discouraged The expectoration was scanty, muco purulent, and had a salty taste The urine was scanty and loaded with urates During the fourth week he occasionally raised a small quantity of pus, which had a sweetish, turnipy and nauseous taste On some days this was the only kind of expectoration, and when this was the case he was pretty sure of a night without fever, but if the sputa were scantier, less purely purulent and with a saline flavor, fever and perspirations invariably occurred When the expectoration was purulent the urine was also more copious and clearer At the end of the sixth week he expectorated a thick mass of pus in which was incorporated some small black objects, which were supposed to be pieces of clover hull From this moment improvement began For ten or twelve days the expectoration continued purulent The signs of consolidation disappeared very quickly, and he was quite well within a month No signs of a cavity were ever detected

Abscess of the lung may cause pyæmia,[1] and it has been found to be rather frequently associated with cerebral abscess Phthisis followed in one of my cases

CASE VIII —B S , male, aged 18 years, with a strongly inherited tendency to consumption, was attacked with pneumonic fever in March, 1879 The lower two thirds of the right lung was hepatized On the tenth day, and with no amelioration of the symptoms and no suspicion of abscess, he suddenly expectorated a tea cupful of pure pus For several days he expectorated from a half pint to a pint of purulent matter in twenty four hours, but the quantity gradually diminished and ceased in six weeks Signs of a cavity in the posterior part of the middle lobe of the right lung were manifested For a while he continued in a most desperate state, but he afterwards improved very much During the summer he coughed only on active exertion, and the signs of a cavity disappeared, yet he continued too weak to work and failed to gain flesh During the next winter he caught cold often and developed a constant cough, and died in the summer of 1881 with all the symptoms of fibroid phthisis

In the last of my series of cases a lady who was informed by her physicians that she had pulmonary consumption, has been entirely relieved of all her symptoms by the discharge of an abscess

CASE IX —Mrs S , aged 37 years, has been an epileptic for twenty years She has had a cough, constant, although varying in severity, with progressive loss of weight, for two years This was not preceded by any illness On August 1, 1885, she had a rigor of three hours' duration, which was followed by fever, pain in the right side, rusty expectoration, etc I saw her on the eighth day, with a pulse of 136, respirations 35, and temperature 104 5° There was dulness on percussion over the right lung as high as the third rib, with bronchial respiration in front, and behind down to the angle of the scapula, but below this there were no breath sounds audible On the following day the temperature fell to 95° and the patient seemed to be *in extremis* From this she rallied, but the pulse and respiration rate remained high, and after two days there developed an evening fever with profuse and offensive sweating The paroxysmal cough was very powerful, often brought on vomiting and only caused the expectoration of an insignificant amount of muco purulent matter On the sixteenth day she suddenly brought up about four ounces of almost pure pus Purulent expectoration continued for nearly a month, when it gradually ceased She began to mend as soon as the abscess discharged, and is now quite well She now has better health than she has had for years Up to the tenth of November she had already gained twenty pounds in weight After the discharge of pus there was tympanitis, gurgling and cavernous breathing, but these signs have disappeared With ordinary breathing there is now a diminution of the respiratory sounds at the right base behind and at the side, and with forced inspiration there is loud crackling and moist râles Deep breathing causes a single dry cough, otherwise there is none

Pneumonic abscess is certainly a condition of much anxiety and gravity, yet, relying upon the experience which I have placed before you and the published cases of others, I think myself justified in believing that the danger has been greatly overrated by many authors[1] Not one of my patients died from the direct effects of the lesions, although some were old and feeble and others were greatly debilitated, and all were very ill indeed Necessarily there will always be a frightful mortality amongst those cases in which the abscess attains a monstrous size, or is discharged into one of the great cavities In most of these cases death is inevitable and must ensue early In those cases, also, in which the collection of pus is of more reasonable dimensions, but has an insufficiently free discharge, or in which dangerous complications occur, or which happen in cachectic and broken down constitutions, the death-rate will always be high But in the case of small or medium sized abscesses, with free openings into the bronchi, and in ordinary subjects, I hold that a fatal termination is the exception and not the rule When death occurs it may take place very early,[2] or it may be postponed for two or three months,[3] or even longer

Cockle[4] relates a case in which death occurred in ten days from the appearance of the first symptoms In this case the purulent cavity was only the size of a pigeon's egg, lined with false membrane and solid walls of considerable thickness The walls and contents were not fetid, although the breath and sputa had been In this case it is scarcely possible that the small abscess was the cause of death, which was probably due to the intensity of the original disease Molson's[5] patient, who was an intemperate woman, aged 35 years, began to expectorate large quantities of purulent matter on the tenth day of an attack of pneumonic fever The temperature, which had kept steadily at about 104°, fell quickly to 99°, and she died on the following day The abscess, which was large, was seated in the lower lobe of the right lung

If recovery ensues it may be either complete or partial, and the duration may be short or greatly prolonged

---

[1] Holmes' System Surg Am ed Vol I, p 661

[2] Swett Op cit p 93 and others

[1] Huss Die Lungenentzundung etc , Leipzig 1864 Jurgensen Op cit p 147 Green Op cit p 859 etc

[2] Molson Med News Nov 1 1882 p 580 Cockle Op cit , p 346

[3] Green Op cit p 859

[4] Op cit p 346

[5] Op cit p 580

The ordinary treatment of pneumonic abscess has, until quite recently, been symptomatic and expectant Now, however, this field is being invaded by the operative surgeon, and the question of what is the best management of these cases is, in many minds, in an unsettled state As to the general results of the medicinal and operative plans of treatment, it can be said that the former, although fairly successful, leaves much to be desired in some cases, whilst the latter has not yet come up to our anticipations Unfortunately it may be said of the majority of the few cases which have thus far been submitted to operation, that the operation was a success—but the patient died Let us first consider the medicinal and expectant plan of management, and afterward the indications for more radical measures

There are some remedies which, I am sure, are of especial value in the treatment of these cases, and at the head of these I would place cod liver oil I usually prescribe it in the form of a recently prepared emulsion, combined with the hypophosphites of lime and soda or, what is better in some cases, muriates of ammonium and sodium It should be given in small doses, frequently repeated Phosphorus and the iodides of iron and potassium are useful in properly selected cases Strychnia I invariably prescribe as a tonic to the respiratory muscles, in order that the cough may be rendered more powerful and efficient Sage tea, atropia, etc, may be required in some cases to check excessive perspiration Mild counter irritating embrocations to the chest I believe to be useful, and I usually prescribe a terebinthenate mixture for this purpose

If the breath or sputa should be fetid, inhalations of iodine, carbolic acid, salicylic acid, turpentine and similar agents may be tried for the purpose of correcting this After you have experimented with the entire list you will regard turpentine as the most generally useful My plan of using it is to keep the atmosphere of the apartment constantly saturated with its fumes The cough is almost always a distressing symptom, and yet I believe that in this powerful cough lies much of the patient's safety, and consequently I am not in the habit of administering any sedative remedies for its relief In those cases in which, although an opening into the bronchi exists, the purulent and decomposing secretions are not promptly removed, with, always, ill consequences, an effort ought to be made to ensure the free and frequent evacuation of the cavity This may be done in a variety of ways A deep, forcible inspiration will often cause coughing, with the ready and efficient expulsion of the morbid matters

As a therapeutical curiosity the method of Gadbury[1] for evacuating lung cavities may be mentioned He forcibly inflates the lungs with a rubber hand-bag, forcing the air freely into all parts of the respiratory tract, which causes coughing and the expulsion of the accumulated cavernous secretions Rokitansky has proposed to make use of the benzoate of soda for the same purpose This agent is an irritant to the bronchial mucous membrane, and when inhaled in solution as a spray, causes prolonged and powerful coughing by which all the fluid in the tubes and cavities is expelled—thus literally washing out the lungs

Patients sometimes discover for themselves that when they assume some particular position the cavity is very readily emptied of its contents, and when this is the case they should be directed to place themselves in such posture at frequent intervals In some of these cases in which the discharging abscess cavity is situated in the base of the lung its closure may be hastened, sometimes very much, by the wearing of an elastic abdominal bandage, having a firm upward pressure, as I recommended some years ago in the treatment of empyemic fistula [1]

The diet should be nourishing and slightly stimulating Food should be given at frequent intervals, and not in excessive quantity If necessary, digestion may be aided by appropriate agents or supplemented by the use of artificially digested foods The regimen and nursing should be of the very best Particular care should be taken that the patient changes his position at suitable intervals, and, if able to do so, he should have easy exercise

Turning now to the operative measures which are available for the relief of purulent accumulations within the lung, let us consider first the conditions demanding an operation, and finally, the method of its performance Before an abscess of the lung has evacuated its contents it is perfectly evident that there are but two modes of procedure, the one pure expectancy, together with the treatment of symptoms, and the other the opening of the cavity by mechanical means Whether the one or the other of these is best and ought to be followed in any particular case must ever depend largely upon circumstances Among these may be mentioned the state of the patient, the locality, size and duration of the abscess, and the skill and tact of the medical attendant There can be no iron rule of universal applicability in these cases My opinion has been already given that the vast majority of these abscesses will evacuate their contents into the bronchi, with the eventual recovery of the patient In a certain proportion of cases, however, the discharge is into one or more of the neighboring great cavities, with, usually, a fatal result Has this ever occurred in the case of small abscesses? If it has my memory fails to recall the report of the case Would the external evacuation of a small abscess add anything to the dangers of the patient? Every one will admit that it does If, then, small abscesses generally result fortunately, through natural agencies, why should we subject our patients to a dangerous operation, offering at best only problematic advantages?

If to these objections to operating we add the acknowledged diagnostic difficulties in exactly locating the purulent depôt and the known failures of accomplished operators in striking it, I think we have abundant reasons for practicing expectancy in this class of cases But when we come to interrogate those larger abscesses the answers cannot be arrived at so easily nor made so emphatic The larger the abscess the more apt will it be to rupture into the pleura, pericardium, mediastinum, etc, with a probably fatal result Will an external opening always, or frequently, prevent this? Sometimes it will, and again it will not In the case of the largest of these abscesses death is probably inevitable, and an operation can do no good and may hasten the fatal issue Even in the case of moderately large abscesses recoveries are not infrequently reported after the expectoration of their contents Very few, indeed, have been cured by an operation Here, however, is the proper field for operative treatment and for further research, and after a wider experience has been gained in it the proper management of these cases may be more authoritatively formulated For the present, they must be left to the good judgment of individual practitioners Personally I should watch such a case in a sort of armed expectancy, pursuing a conservative course, yet ready to give my patient the doubtful benefits of an operation should occasion offer

---

[1] Boston Med and Surg Jour March 3 1881 p 202

[2] St Louis Med and Surg Jour Jan 20 1880 p 59

[1] Cincinnati Lancet and Clinic Oct 15 1881, p 348

In case the abscess has already discharged through the bronchi, the rule of action to be adopted is clearer, and may be stated as follows When the cavity is being freely evacuated, no matter what the symptoms may be, an operation is clearly inadmissible But if the opening in the bronchus is not of such nature as to allow of a free exit of purulent matters, or if they are prevented from escaping by other causes, and the patient is steadily losing ground and approaching closely to the danger line, an operation is demanded This, however, should not be done hurriedly, but rather delayed a reasonable time, for in some of these cases Nature enlarges the opening or removes other impediments to a free discharge, and improvement and recovery quickly follow

The first account of the external opening, by an operation, of a pulmonic abscess of which I have any knowledge, is given by Sedgwick[1] It is true that the operator thought he was treating an empyema, caused by the bursting of the abscess into the pleura, yet a careful reading of his paper will show that, like Radek[2] he was mistaken in his diagnosis The case, in abstract, is as follows A medical man, aged 58 years, was attacked with pulmonary inflammation, in the course of typhus fever, in the spring of 1850 Ten days after the onset of the pulmonary complication, symptoms of a large abscess in the lower part of the right lung appeared, and he began to expectorate purulent matter, with signs of a cavity A bulging developed between the sixth and seventh ribs at about their middle, and at this place there was removed more than a quart of stinking pus When the fluid ceased running, air in great abundance passed through the canula, and when the patient coughed, the current became so strong that it blew out a candle which chanced to be near The patient improved at once and the opening closed in three months He resumed his duties, but during the following winter he caught cold frequently, a relapse followed, and in the spring it became necessary to make a second operation, this time giving exit to three pints of pus Subsequently the opening was maintained patent by the constant use of a gutta percha plug an inch and a half long He regained moderate health, returned to his employments and died in 1857, seven years after the first operation An autopsy was not permitted During the past six years, the operation has been done often, and by a number of operators, both at home and abroad

Having, then, a patient with a large unopened abscess, or one which, although opened, has an insufficient discharge and who is steadily declining, and who is evidently doomed to a greatly prolonged illness or perhaps death, the good sense and discrimination of the surgeon will say that an operation is indicated and should be done This having been decided upon the abscess cavity should be exactly located with the hypodermic or aspirating needle, and this used as a guide in the subsequent puncture The locality selected for the opening should invariably be that point where the abscess approaches nearest the surface Generally the pleura is involved in the inflammation, the pleuritis plastic and the layers adherent over the purulent cavity The more chronic the case the more apt is this to be so Fenger and Hollister[1] say that if an incision is made down to the intercostal muscles, over the seat of the abscess, and a needle thrust into the lung it will not move synchronously with the respirations if adhesions are present, whilst a contrary condition is indicated by such movements If adhesions are absent several needles might be inserted through both layers of the pleura and allowed to remain until inflammation is set up, when, if the chest wall is kept quiet, adhesions may form and the operation completed at another time

The patient being under the influence of chloroform, an incision of suitable length is made in an intercostal space down to the pleura A medium sized trocar should then be slowly and gradually bored through the intervening structures until the cavity is reached, and the purulent contents allowed to escape Through the canula a drainage tube of soft rubber and a smooth internal extremity should be passed and allowed to remain Instead of the trocar the electro or thermo cautery may be used in opening the abscess, and this method is preferred by Albert, Koch and Fenger[2] The drainage tube must be shortened from time to time as the cavity contracts The outer opening should be covered by an absorbent dressing, which should be frequently renewed I should object to injections of any kind, and especially to those containing carbolic acid or other poisonous substance in any considerable proportion

In closing I will offer for consideration the following conclusions, which I think are warranted by the facts above stated

1 The issue of pneumonic fever in abscess is rare, but this rarity has been generally overestimated

2 These abscesses vary much in size and are most frequently found at the base of the lung

3 They may, in some cases, be caused by excessive jarring or other motion

4 They are usually formed rapidly

5 In some rare cases the purulent contents may degenerate into a cheesy mass, to again soften, liquefy and be discharged

6 The symptoms and signs are generally quite distinctive and sufficient for an accurate diagnosis

7 The majority of cases recover, but in a certain proportion a cure is impossible

8 Expectant and medicinal treatment has, thus far, given the best results and the majority of cases should be managed upon this plan, but under certain conditions the most radical measures for relief are not only justifiable but imperatively demanded

---

[1] Lancet N Y ed 1869 Vol II p 173
[2] Centralb f Chir 1876 No 44 p 750

---

[1] Am Jour Med Sci Oct 1881, p 386
[2] JOURNAL AMERICAN MEDICAL ASSOCIATION July 17 1884 p 67

OBSERVATIONS UPON THE STRUCTURES TO BE INCLUDED IN THE SUTURES IN THE OPERATION FOR FIXING A FLOATING KIDNEY

BY L H DUNNING, M D,
OF SOUTH BEND INDIANA

The question which the writer will discuss more particularly in this paper is, Shall the Renal Capsule be included in the Sutures? That this is an important question and one that has not been definitely settled, those familiar with the medical literature of the last few years are well aware

The writer has deemed it advisable to refer to some of the statements of a few of the writers upon the subject Morris[1] states that "In Hahn's first two cases the sutures included the peri renal fat, and one of them was unsuccessful In the third case he included the renal capsule in the stitches, but with what result is not stated Gilmore[2] included the renal capsule but the suture cut its way out and set the viscus free Weir[3] included in one case the perirenal fat and was successful Morris concludes that "Experience will have to decide whether there is any necessity of penetrating the envelope of the kidney" He goes still further, and says, "It is not adequately proved that any suture is requisite to attain the end in view"

Lucas,[4] in a discussion at the annual meeting of the British Medical Association, says "Painful moving or floating kidney, being only a mechanical disturbance, admits of relief only by mechanical means Simple exploration and replacement through an incision in the loins, would probably be sufficient, in a majority of cases, for the cure of this condition, the adhesions resulting serving to retain the organ in position Stitching the capsule to the parietes, or, as it is termed, nephrorraphy, is a somewhat serious but still simple undertaking In eight patients in which it has been performed, the patients have all recovered and were relieved" In a previous article[5] the writer took the ground that if the peri renal fat and capsule are intact, *i e*, if they retain their intimate relations to each other and to the kidney, which may be ascertained when the organ is exposed by the incision, there is no need of including the nearer investing capsule The reasons for this conclusion were based upon experiments briefly stated Since the publication of that article the writer has made numerous experiments upon the kidney of animals just slaughtered, a few observations upon the kidney of the cadaver, and has had one opportunity to verify his conclusions by experiments made upon a patient during an operation for fixing a floating kidney

The animals seen by me and experimented upon were sheep, calves and beeves I was present when they were slaughtered and hung up, so that my observations respecting the kidney commenced a few minutes after the death of the animals When first hung up and opened, the organ in question in all the animals was quite movable, especially so in the sheep, in which it could be moved back and forth and up and down several inches, without doing violence to any investments of the organ or to the ureter, blood vessels or nerve The right organ was slightly more movable than the left and slightly larger It was found, on moving the kidney, that not all the perirenal fat went with it but that the organ was uniformly surrounded, except a small area upon the anterior inferior aspect, by an investment of fat that accompanied it in all its movements This investment was found to be quite firmly adherent to the renal capsule and the nerve vessels and ureter for a short distance nearest the hilum It was not so closely adherent, however, but that considerable freedom of movement of the kidney was possible within the investment By grasping the fat in the hand, just below the inferior portion of the kidney, and making gentle yet firm pressure the kidney could be made to ascend from three eighths to half of an inch, without doing violence to any of the tissues under observation

The fat investing the kidney was connected with that lying upon the psoas and quadratus muscles by irregular bands of adipose and connective tissue, so that the movements of the kidney were restricted to certain limits It was observed with considerable interest that the attachments of the adipose tissue to the capsule were quite as difficult to break up as it was to tear the adipose tissue These attachments seemed to me to be the strongest about the center of the two surfaces of the kidney and near the hilum That small area but lightly covered with fat possessed interest to me and was carefully examined On close inspection, it was found that a thin layer of connective tissue, with its attachments to the capsule, stretched across this surface and was lost in the adipose tissue surrounding it I tried, in various ways to forcibly remove the kidney from its investing fat without doing violence to that organ The only way I accomplished it, without lacerating the kidney, was previously incising or tearing the fat by squeezing it with the hands in various directions When the organ did leave its investment, the direction it was most prone to take was downward and forward

Before proceeding to another branch of the subject, let me briefly summarize There was found,

1 A normal, not exact, range of mobility

2 An investment of fat accompanying the kidney in all its movements, except an up and down movement, within its own circumference

3 The attachments of the tissue were as strong as the tissue itself

4 It was difficult to remove the kidney from its investment without lacerating it

Now, if it be shewn that these conditions are identical with, or analagous to, the conditions found in the living man, then we have some light received that will aid us in deciding the question Morris says experience will have to decide A part of the conditions I have described as having been found present in the lower animals just slaughtered I have been able to demonstrate as having been present in at least one human being On October 10, 1885, assisted by Drs Hitchcock, Kittering and McAllister, of this city, I did the operation for fixing a floating kidney, the patient being an unmarried female, 35 years of age. Before the operation, it was easily demonstrated that the right kidney, by a change of the position of the body, would move transversely across the abdomen about four inches and downward and forward about five inches. There was nothing unusual about the operation, except that the space between the twelfth rib and the crest of the ileum was so short that a slightly crucial incision was made, three inches long, commencing within two and one-fourth inches of the vertebral column, on a level with the lower border of the twelfth rib, and extending downward and outward. No difficulties were encountered in cutting down upon the kidney. As soon as the cellular tissue covering the adipose tissue was cut through, quite a quantity of that tissue projected up into the wound and was cut away with scissors. With a finger in the wound, I made search for the kidney and found it after well-directed pressure had been made over the abdomen. The kidney was observed to be uniformly surrounded by fat, except that the investment was thinner over the anterior inferior aspect of the viscus. This investment accompanied the kidney in its movements away from the incision. A portion of it was seized with dressing forceps and the mass (kidney and investment) was drawn down to the edge of the incision. Now, I could, and did for the most part, examine with the finger every portion of the external surface of the kidney. The envelope was found intact, as just described. With two fingers in the wound I could move the kidney slightly upward and downward in its fatty envelope, and further, could distinctly feel the upward and downward movement of the viscus during inspiration and expiration.

---

[1] International Cyclopædia of Surgery Vol x p 1096

[2] Ibid

[3] N Y M Journal Vol 37 p 170

[4] JOURNAL AMERICAN MEDICAL ASSOCIATION Jan 1884 p 82

[5] THE JOURNAL Feb 21 1885

It is not likely that these points would have been all observed had not the experiments above outlined been conducted previous to the operation. Now was forcibly brought to my mind a fact I have never seen stated, viz. No means of fixing a movable kidney should be employed that does not comprehend and admit, to a considerable extent at least, the normal movements of the viscus during inspiration when changes of the position of the body occur. The mobility of this organ is undoubtedly Nature's method of preventing undue pressure being made upon it during respiration and postural changes. Undue and uneven pressure would undoubtedly induce disturbances of circulation, with its attendant evils, some of which might and would likely be disastrous.

Which method, then, shall be employed in anchoring the kidney, or, in other words, what structures shall be included in the sutures? Simple incision and replacement of the organ has been suggested, but I have not yet read or heard of any one who has had sufficient confidence in this method to employ it. I have no confidence in it since, in both cases in which I have operated, the kidney was inclined to slip away the moment the abdominal pressure was removed, or there was the slightest change in the position of the body of the patient. It would undoubtedly be the preferable method provided it were successful, for then fixation would occur without undue adhesions and with an unbroken capsule, both of which results are desirable. As between the two methods of suturing, it seems to me there are valid and conclusive reasons for adopting one and rejecting the other, and, in order that these may be made more apparent, the structure, attachments and office of the renal capsule should be considered. This capsule is made up of dense areolar tissue. In its structure the white fibrous tissue is largely in excess of the yellow elastic tissue, hence it is very firm and nearly inelastic. That it is practically inelastic may be shown by taking a strip of the capsule two inches long and half an inch wide, seize each extremity by a pair of forceps and make gentle yet firm traction, and it will be found that before any appreciable stretching of the strip will occur it will tear at the edges or at the limits of the grasp of the forceps. Take in the hand a kidney with the capsule intact. With a conjunctive forceps raise a portion of the capsule and separate it from the kidney over a considerable area. Now the capsule can be drawn away from the kidney, but in so doing the shape of the kidney will be invariably changed in ratio to the amount of force used, thus shewing a lesser density and greater elasticity of the structure of the kidney than that of the capsule. Other points may be observed. The capsule is easily torn if once an opening be made in it. Stitches passed with a needle with cutting edges tore out with less force applied than those passed with a round needle. The capsule is denser and thicker as it approaches the hilum. In this region the attachments are strong, the tissues dense and the capsule is two or three times as thick as elsewhere. That portion lining the sinus and reflected upon the ureter nerve and blood vessels is so strong and so firmly adherent that careful dissection or strong force is requisite to detach it. Here is a wise provision of nature, and here is found the great reason why a moving kidney pushed far away from its moorings, at times falling by its own weight or pushed downward by pressure, is not more frequently or more intensely painful.

Take the kidney in one hand and the ureters and vessels in the other. Hold the kidney firmly and make strong traction upon the cord. Now you can readily demonstrate that until the capsular adhesions are broken up or the capsule itself torn, there cannot possibly be any stretching of the nerve, blood vessels or terminations of the ureter, within the kidney, for in this effort all force exerted is expended upon the capsule, its attachments, or the structures to which it is adherent. If sufficient force be used, the kidney will be lacerated before the other structures will give way. This fact I noticed in my experiments, gentle yet firm force, intermittently applied, did, in a few instances, cause a gradual separation or giving way of the capsular attachments, and the stretching or traction upon the internal nerves, blood vessels and ureter could be readily produced. It seems to me probable that this sometimes occurs in the patient, and then occur the attacks of intense pain sometimes experienced by subjects of floating kidney. Two other offices of the capsule of the kidney may be mentioned. It acts as a barrier to the spread of inflammation to the kidney from surrounding structures or organs, and furnishes a surface for the attachment of its fatty envelope

In view of the facts stated, it seems certain that if the renal capsule be included in a sufficient number of sutures to hold the kidney firmly in position at the bottom of the incision, the normal movements of the organ will be entirely prevented, and thus it will be subjected to undue pressure This is the greatest objection to suturing the structure under consideration In truth, it would appear to be a sufficient reason for absolutely condemning such a procedure Other reasons opposed to such a procedure are apparent when the facts already stated are remembered Should the sutures cut their way out of the capsule—and this they would be likely to do since the movements of the viscus are from above downward, so that every respiration of the patient brings a strain upon the sutures in such a direction as to render them likely to tear or cut the tissues they include—we have then a broken capsule, which will render the attachments of the invest fat less effective, and in part remove the barrier to the spread of inflammation to the kidney It would also render less secure the attachments of the capsule to the organ near the hilum and thus diminish the protection to the ureter, blood vessels and nerves against violence in the movements of the kidney To some it may appear that the last mentioned danger is imaginary, or at least remote That it is remote may be conceded, but it is none the less real and is entitled to some weight in deciding the question under discussion

Having thus shewn what I deem valid and sufficient reasons for condemning the method of including the capsule in the sutures, it yet remains to shew the advantages and efficiency of suturing only the perirenal adipose tissue What we should aim at in this operation is to firmly fix the kidney in a favorable position, in such a manner as to permit of sufficient motion to prevent undue pressure being made upon it, and that too with an unbroken capsule The facts already stated in this paper are the basis of my conclusion that these desiderata can all be realized by stitching the investing fat to the edges of the incision This investment, with its attachments, when intact, are strong enough to permit the kidney to be favorably placed and held in position and when so held the organ will have considerable freedom for motion within the circumference of its envelope The capsule will be untouched Experience has shewn that in a vast majority of cases this method has been successful in anchoring the kidney and in affording relief If the nearer investing fat be intact and included in the stitches, the writer cannot see how anything more desirable for a good result can be obtained If failure be the result, it must be from causes independent of the method of operating

The writer now ventures the opinion that in cases favorable for operating and in which there were failures, either the kidney had left its fatty envelope or else there was little or none of it included in the sutures, and, furthermore, that in some of the cases in which the capsule was supposed to have been raised and penetrated, only a portion of this structure was stitched to the parietes In his first case, the writer now believes he was so deceived, for experiment has shown him how difficult it is to separate and lift away from the organ sufficient of the capsule to be included in the threads, even after the removal of all adipose matter

The writer's conclusions may be stated as follows

1 The kidney has a normal range of motion

2 The operation for fixing a floating kidney should comprehend and permit, so far as possible, this normal range of motion

3 The capsule should be left unbroken, and, if possible, free from adhesions

4 Stitching the capsule ignores the fact stated in the first conclusion and prevents the realization of the desideratum mentioned in the second, and from its very nature precludes the accomplishment of the second named desired result

5 Suturing the fatty envelope recognizes the truth of the first conclusion, and fulfils the indications of the second and third conclusions, hence it is the method greatly to be preferred

MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS

Gelsemium and its Reported Antidotes —Dr Emil G Reyfuss, of Philadelphia, at the close of an article on this subject, draws the following conclusions from his experiments on animals

In the case of ammonia carbonate *vs* gelsemium, the results were not only negative, but we had increase not only in the number but also in the intensity of the convulsions, death being accelerated in every case

In the case of alcohol, the convulsions were of a milder type, but a fatal issue resulted in every case

The same negative results were noticed in using the above two reputed antidotes together at the same time, with the exception that the onset of the convulsions were of quite a mild nature, those occurring later were, however, very severe, ending in death

Morphine retarded death somewhat, and considerably moderated the symptoms

Atropine The same may be said of this agent as of morphine, it, upon the whole, affording somewhat more satisfactory results, though it did not prevent death occurring

I am led to conclude, from a careful study of this subject, based upon the results of my experiments, as well as on the collection of cases occurring in the human subject, that in treating a case of poisoning by gelsemium in the human subject an emetic may be given at the very onset One should not stop here, as little reliance can be placed upon the efficacy of the same, it appearing by reading the cases recorded that emesis took place only in one case in which emetics were used Owing to the easy obtainment of such stimulants as ammonia carbonate, brandy, and tinct digitalis, etc , these should be resorted to at once In addition, I would suggest the early and repeated use of small doses of atropine sulphate, given hypodermically to sustain respiration Of course external use of sinapisms, rubbing, electricity, artificial respiration, etc, should be resorted to in every case —*Therapeutic Gazette*, Oct, 1885

MEDICINE

The Treatment of Frostbitten Fingers and Toes —Dr Lapatin, in the *Proceedings of the Caucasian Medical Society*, advises that fingers and toes which have been slightly frostbitten, and which subsequently suffer from burning, itching, and pricking sensations, should be painted, at first once, and afterwards twice a day, with a mixture of dilute nitric acid and peppermint water in equal proportions After this application has been made for three or four days, the skin becomes darkened and the epidermis is shed, healthy skin appearing under it The cure is effected in from ten to fourteen days The author has found this plan very effectual amongst soldiers, who were unable to wear their boots in consequence of having had frozen feet They were, in this way, soon rendered capable of returning to duty —*Brit Med Jour*, Sept 5, 1885

SURGERY

Treatment of Joint Diseases by Rest and Fixation —Dr De Forest Willard thus sums up a paper read before the Lehigh Valley Medical Association, on August 19

1 Rest subdues joint inflammation more effectually than all other means combined, often aborting, always lessening, an impending process Its employment is indicated by nature, its beneficial influence is seen in every domain of medicine, in theory it is rational, in practice it fully proves its power

2 The more perfect the rest, the greater will be the diminution of pressure, friction, tension, and inflammation, and the less will be the resultant ankylosis and suppuration

3 The means for securing rest and fixation are exceedingly simple and can be applied by every intelligent practitioner

4 Counter irritation is of secondary importance

5 In inflammations of the sterno clavicular, acromio clavicular, and scapulo humeral articulations the arm should be fastened to the body which takes the place of a splint

In elbow disease the member should be immovably fixed in a semi flexed or in an extended position, pressure aspiration puncture, drainage, excision etc, to be employed as necessary

In the wrist and hand articulations the same principle is to be enforced, long continued rest being necessary Early exit of purulent accumulations must be secured antiseptically by the bistoury and the progress of caries carefully watched, the surgeon interfering only when nature is unable to properly accomplish separation or health fails

In the ankle and foot the same will hold true, fixation by plaster or other rigid material being complete and permanent Locomotion for even one step without the aid of crutches should be positively forbidden —an injunction which is equally applicable to diseases of the knee and hip

At the knee, the question of counter irritation, immobilization, or rest in bed with extension, will depend largely upon the amount of traumatism and the existence or absence of muscular rigidity When nature indicates by the last mentioned symptom that motion is harmful, delay in enforcing one of the latter measures is criminally negligent

Serous effusion should be aspirated, pus evacuated antiseptically, free drainage maintained, and excision practiced as soon as it is decided that destruction has occurred

Permanent rest and fixation, with the use of crutches, are far better than any form of extension that can be applied in the upright position

In hip disease, horizontal extension with fixation answers best for the acute stage, Three months after the cessation of pain, if deformity has been largely reduced, the erect position may be assumed provided the joint is put at rest by a fixation apparatus and the high shoe and crutches are used —*N Y Med Jour*, Dec 5, 1885

Cure of Varices by Excision —Mr J Farrant Fry, in an article on this subject draws the following conclusions If palliative measures afford sufficient relief, it is unwise to operate, but of the various operations, the excision of the vein is the safest and that, for its successful performance, the following details must be strictly carried out

1 Excise through several small incisions (not more than an inch in length) in preference to removing one large piece, as by so doing the vein is occluded at several points

2 Mark the site of the proposed excisions before applying the bandage, as the position of the varices becomes indefinite when the limb is rendered bloodless

3 Apply the Esmarch's bandage carefully, so as thoroughly to empty the blood vessels, or, the wound becoming full of blood, there will be considerable difficulty in dissecting out the vein, and very troublesome hæmorrhage may occur

4 Ligature the vein at its upper end, and dissect it out from above downwards

5 Remove as little as possible of the tissues surrounding the vein, but, if unavoidable, take also away the deep fascia (which is but feebly supplied with blood, and will not favor union), and allow the skin to adhere to the vascular muscle

6 Apply the dressings, and bandage the limb, before removing the tourniquet By this means hæmorrhage is avoided, and primary union encouraged

7 Above all, the careful employment of antiseptic measures is necessary, both during the operation and in the subsequent dressings —*Brit Med Journ*, Sept 5, 1885

Ligation of the Common Iliac for Aneurism —Dr D Ignacio Plasencia reports the case of a man, æt 34, upon whom he performed this operation on July 22 The ligature used was No 13 surgical silk The patient was well on September 5, and the tumor was reduced to the size of a small lemon, and was very hard —*Cronica Medico-Quirurgica de la Habana*, Nov, 1885

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

The Editor of this Journal would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

Subscription Price, Including Postage.
Per Annum, in Advance $5 00
Single Copies 10 cents

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in registered letters.

Address,
Journal of the American Medical Association,
No. 65 Randolph Street,
Chicago, Illinois.

SATURDAY, DECEMBER 19, 1885.

THE EXECUTIVE COMMITTEE OF THE NINTH INTERNATIONAL CONGRESS.

In our issue of November 28, we showed how the Committee of Arrangements appointed by the American Medical Association to provide a Preliminary Organization for the Ninth International Medical Congress had, at its last meeting, so modified the Rules regarding membership as to obviate all the objections that had been made to those previously proposed, and had proceeded so far with the selection of general officers and the organization of Sections, as to bring into existence an Executive Committee of the Congress with powers, duties and limitations as provided in Rule 10, and had then transferred to such Executive Committee authority to make all further appointments necessary to complete the organization of the Sections, and to take charge of the affairs of the Congress. We reminded our readers, also, that the Committee on Organization, in framing Rule 10, providing for an Executive Committee to be constituted of the President, Secretary General, Treasurer and Chairman of Finance Committee of the Congress, and of the Presidents of the several Sections, authorized said Committee to elect such additional members as it might deem advisable, provided the whole number of the Executive Committee should not exceed thirty. This power conferred upon the Executive Committee to add to its own number within certain limits, was regarded as affording an opportunity for promoting a return of harmony and concert of action by electing to the Executive Committee a considerable number of the original leaders in the movement for a Congress in this country, who under other proposed rules and circumstances had declined to act.

The general officers and Presidents of Sections who were to constitute the Executive Committee of the Congress, after formally accepting their appointments under the Rules adopted by the Committee of Organization, assembled in New York, on November 18, 1885, and entered upon the discharge of the important duties that had been devolved upon them. After a free interchange of views it was decided to postpone the filling of all the more important vacancies in the organization of Sections, until such means for inviting cooperation and harmony of action as were within the control of the Committee had been fairly tried. Finding that the maximum number of the Executive Committee, as provided in Rule 10, permitted the election of six or seven new members, the Committee proceeded at once to unanimously elect Drs. William Pepper and J. M. Da Costa, of Philadelphia, Surgeons J. S. Billings, U. S. A., and J. M. Browne, U. S. N., Dr. Christopher Johnston, of Baltimore, and Dr. Geo. J. Engelmann, of St. Louis, as members of the Executive Committee. The last four named were selected partly because they were members of the original committee of invitation appointed in Washington, May, 1884, and partly because they represented important interests in the profession. The first two were selected because of the high official positions they occupied and the extent to which they were known both in this country and in Europe. And it was hoped that all the gentlemen named were capable of appreciating the importance of the object to be attained, and of personally rising above all mere individual considerations, so far as they might be supposed to conflict with the maintenance of the honor and interests of the whole profession. That each of the gentlemen appointed might know exactly both the limits of power and the numbers of the Executive Committee, a copy of Rule 10 was enclosed in the official notices to them, and also a statement of the fact that the filling of all vacancies had been postponed until their decision should be received.

Such was the course of the Executive Committee, acting within the limits of the powers conferred upon it by the Rules under which its members had accepted office and in good faith to all parties. Had these six gentlemen appointed accepted the positions offered, it is quite certain that the eminent men who were originally appointed Presidents of the three Sections having that office now vacant, would have cheerfully returned to those places, and if not, the places would have been filled by such as the new appointees on the Committee should name, and every desirable interest in the profession could have been harmonized within thirty days. But what has been the result? Let the following, which was received at this office in the form of a printed slip after THE JOURNAL for the 12th inst. had gone through the press, answer:

> THE INTERNATIONAL MEDICAL CONGRESS OF 1887.—A meeting of members of the medical profession interested in the International Medical Congress in 1887, to which prominent medical men from a number of cities were invited, was held at the Hall of the College of Physicians, Philadelphia, December 4, 1885, Dr. D. Hayes Agnew in the chair.
>
> It was stated that official notice had been given of the election, as members of the present Executive Committee of the Congress, of Drs. J. S. Billings and J. M. Browne, of Washington, D. C., Christopher Johnston, of Baltimore, George J. Engelmann, of St. Louis, and J. M. Da Costa and William Pepper, of Philadelphia.
>
> A general and strong expression of opinion was made in support of the American Medical Association and its Code of Medical Ethics, and sincere regret was expressed that hasty action on the part of the Association, and the introduction of false issues, had imperiled the success of the Congress.
>
> As an evidence of the earnest desire which is felt for the restoration of harmony upon this subject, and for the reorganization of the Congress on a basis which would command general support, and thus insure success, the view was unanimously expressed that if the present Executive Committee should unite with them the Original Enlarged General Committee, and recommence the organization *de novo*, this course would insure the desired result.

Following this in the *Medical News*, of December 12, is the announcement that all the six gentlemen have declined to accept the appointments. Instead of each individual weighing his own responsibilities and appreciating his own opportunities for promoting the welfare of the profession, and opening free correspondence with the Executive Committee for further information or possible changes, if any were needed, the whole matter is submitted to a partisan caucus for an evening of one-sided discussion, ending in a simple declination to accept. And this from the leaders of the party who claim to be the only eminent representatives of the science and art of medicine in America. Oh, Sense of Propriety, whither hast thou fled! The only suggestion accompanying the declination is, that the present Executive Committee shall unite or blend with itself the whole of the Original Enlarged General Committee, and "recommence the organization of the Congress *de novo*." In other words, that the present Executive Committee shall openly violate the tenth Rule, to which it owes *its own* existence, and from which it derives all its powers, then abrogate itself and attempt to leave the organization of the Congress wholly to that imaginary body called the Original Enlarged General Committee. We say "abrogate itself," because each member of the present Executive Committee holds such membership only by virtue of his appointment either as a general officer of the Congress or as President of a Section, and the moment he vacates such office to commence the organization of the Congress *de novo*, he ceases to be a member of the Executive Committee, and the way is open for the Committee of Arrangements, composed of one representative from the profession of each State and Territory, etc., to fill their places and resume control of the whole work.

We cannot believe that the six influential gentlemen to whom appointments on the Executive Committee were tendered either considered with sufficient care their own individual responsibility, or appreciated the real nature of the suggestion to which they lent their sanction. And we therefore warmly commend to their consideration the following paragraphs from an editorial in the *Medical News* of the same date as that containing the account of the medical caucus above mentioned. "The time has now arrived when honor rises superior to all other interests, and demands that we shall combine for international purposes, and make good the invitation which, in the name of the medical profession of this country, was extended to our brethren of foreign lands to hold their next Congress at Washington. Everyone who has had the true honor of his profession at heart, regardless of the mistakes that he thinks others have made, has looked upon the situation with feelings of deepest sorrow and mortification, and has felt that under the circumstances, any honorable sacrifice to avert the threatened disaster was a duty he owed to his profession and to his country.

We cannot but hope that the few who now have it in their power to effect this harmony will use their influence to that end, and by their action, under the present trying circumstances, show that they are ready to sink personal considerations for the public good. The occasion is one for the display of the highest patriotism, and the end to be attained is worthy of the greatest sacrifices." So thought the members of the present Executive Committee of the Congress, and so they have acted in the only direction within their power. And in the same spirit, we trust, they will continue to act in the prosecution of their work, and they cannot fail to be sustained by the great body of the medical profession, at home and abroad, until their work is crowned with that abundant success which, in the opinion of every impartial mind, it certainly deserves.

THE NEW ANTIPYRETICS.

However conservative the Germans may be in social and political affairs, there is no question as to their being progressive in medical matters. They are eager, restless investigators. Within the last two years synthetical chemistry in Germany has signalized itself by the production of several compounds which have been found to exert marked antipyretic power. Their names have already become familiar to the medical profession throughout the civilized world. Antipyrin, was derived from chinoline by L. Knorr, a chemist of Erlangen, and brought to the notice of the profession in 1884, by Dr. Filehne through the columns of the *Zeitschrift für klinische Medicin*. Kairin also was introduced into use in medicine by Filehne, while thallin was discovered by Skraup, and recommended as a febrifuge by Dr. von Jaksch, of Vienna. The rapidity with which their employment has spread among the clinicians of Europe and in this country is astonishing, and the literature upon the subject has already become extensive. Resorcin chinolin, brenzmatechin and hydrochinon likewise possess antipyretic virtues, but either by reason of associated disadvantages or inferior power are less esteemed than the three named above. Of hydrochinon, however, it must be said that Dr. Kinnicutt, of New York, has experimented carefully with this agent, and reported favorably upon it before the Academy of Medicine in that city. (See *New York Medical Record*, May 30, 1885.)

In the same city Dr. Van Schaick and others have been testing the action of inspissated ox gall, and claim that in doses of thirty grains or more it also acts as an antipyretic. Dr. Tovar, of Cuba, has lately announced that parthenine, one of the constituents of parthenium hysterophorus, a plant of that island, possesses febrifuge as well as antiperiodic power. The natives of Cuba use this plant as a substitute for quinine, and with the exception of salicin, salicylic acid and salicylate of soda, parthenine is the only one of the new antipyretic agents which, like the quinia salts, exerts specific power over fevers. Parthenine deserves further investigation.

Although the physiological action of antipyrin, kairin and thallin is not fully understood, it is well established that they do not depress the bodily temperature in health in doses which certainly lower it when elevated by disease. Brouardel and Paul Loye assert that kairin and thallin destroy the hæmoglobin and lessen the power of the blood in consequence, to transport oxygen and carbonic acid to and from the tissues. According to the same observers antipyrin does not exert this destructive action on the blood, but is nevertheless toxic in its effects, producing in poisonous doses tetanic convulsions, similar to those of strychnia poisoning. Unlike resorcin, these three agents possess no antifermentative or antiputrefying properties. Antipyrin, aside from its antithermic action, possesses hæmostatic virtues which Henocque pronounces superior to those of ergotine and chloride of iron.

Since these agents are all pronouncedly antipyretic, the query arises as to how they exert this effect? Filehne has expressed the opinion that it is through the nervous centre which regulates the production and loss of the animal heat, while Jaksch, Bettelheim and others have advocated the theory that it is due to a dilatation of the peripheral vessels in consequence of which a greater amount of blood is subjected to the cooling action of the external atmosphere. Some influence has also been attributed to the free diaphoresis which follows the exhibition of these drugs.

Another query concerning the effect of these antipyretics is, whether or not their employment is attended by danger or any contraindicating disadvantages. The general opinion of clinicians is that they are safe, sure and unobjectionable. Yet the reports made thus far ought to lead a conservative man to regard declarations concerning their safety as the expression of a too great enthusiasm. Almost all who have employed antipyrin and thallin have reported the occasional production of a subnormal temperature bordering closely on collapse, while May has narrated one case of actual collapse as the result of antipyrin. Dr. Barrs, of Leeds, has published one instance in which death occurred after, and probably in consequence of the administration of 35 grains of this remedy, followed in three hours by half that dose. Such facts as these should make one cautious, particularly in cases of adynamia. Vomiting and an exanthematous rash sometimes result, but seem not to be of grave import nor specially annoying. If, however, thallin and kairin exert the destructive influence upon the blood that is asserted by Brouardel and Loye, their employment should be prohibited. Moreover, the depressant effect of kairin is so great that, at the fourth German Congress of Internal Medicine, held at Wiesbaden last April, a strong feeling against its use was expressed.

The remedies under consideration have been employed in children as well as adults, and in a great number of diseases attended by high temperature. Antipyrin has yielded specially happy results in phthisis and typhoid fever. It is preferred to quinine as more efficient, and free from the cerebral disturbances which characterize the quinia salts Indeed, along with the reduction of the temperature in typhoid fever, there is produced a notable improvement in head symptoms On the whole, antipyrin and thallin are endorsed by high authorities, although, owing to their somewhat delayed action as compared with that of the cold water bath, it is generally thought best to resort to the bath in cases of alarming hyperpyrexia Indeed, the Vienna school appears to prefer cold water to mere medicinal antipyretics, and argues that the benefit of the bath is not limited to the mere reduction of the bodily heat Its action upon the skin, nervous system and kidneys must be taken into account, and in this lies a great part of its superiority over antipyrin or other medicinal febrifuges In this country the cold bath has not met a very cordial reception from either physicians or patients This is due largely to the discomfort and trouble involved

In the columns of The Journal of Sept 26, 1885, under the head of "Medical Progress," is a plan suggested by Dr H C Wood in the *Therapeutic Gazette* for July last, according to which a cold bath may be given quite easily He also expresses a preference for cold water as a febrifuge, over internal agents which are manifestly depressant, and we think the opinion of such an authority should carry weight He also mentions the declaration of Stephan, of St Petersburg, that the heat of the body can be reduced by the application of cold wet sponges to the neck over the superficial veins Those wishing a more explicit account of antipyrin will find in the columns of The Journal of Dec 5, 1885, a contribution, by Dr S S Adams, of Washington, upon its history and physiological effects In the same number, under "Medical Progress," Jaccoud's experiments with thallin are narrated, with a limited review of the action of this drug, antipyrin, and others of the series

SOCIETY PROCEEDINGS

AMERICAN PUBLIC HEALTH ASSOCIATION

Thirteenth Annual Meeting, held at Washington, D C, December 8, 9 and 10, 1885

(Specially reported for The Journal)

Tuesday, December 8—First Day

The Thirteenth Annual Session of the American Public Health Association convened in Willard's Hotel, Washington, at 10 A M , under the Presidency of James E Reeves, M D , of Wheeling, W Va Ninety five members were present

The President introduced Dr Smith Townsend, Chairman of the Local Committee of Arrangements, who announced the plans formed by the members of the Committee for the entertainment of the members

Dr Irving A Watson, of Concord, N H , Secretary of the Association, then read a communication from the Montreal Board of Health, regretting its inability to send a delegate

Dr A L Gihon, U S Navy, stated that it was necessary that a permanent

COMMITTEE ON INCORPORATION

should be established

Forty gentlemen were then elected members of the Association, and the names of twenty four proposed for active membership

Dr J Irving Watson, the necrologist, read the list of members deceased since the last meeting

Dr J Berrien Lindsley, of Nashville, submitted

THE TREASURER'S REPORT,

showing a cash balance on hand of $1,105 03

The Constitution was then so amended as to make the Incorporation Committee a standing committee

Dr Ezra M Hunt, of Trenton, N J read a paper on

SANITARY NOMENCLATURE

It carefully reviewed the various terms now used in sanitary, statistical and parasitical nomenclature Such terms as hygiene, contagion, infection, miasm, malaria, etc , were subjected to careful review, and their proper use designated The adaptations of the English nomenclature to new diseases were reviewed In the parasitic nomenclature of disease the terms micro organisms, microderms, microbia microzia, microphytes, microzyms, were discussed The classification of Cheyne was preferred The paper is important, as furnishing the basis of a careful and definite use of terms in the discussion of communicable diseases

Dr George H Rohe, of Baltimore from the Committee on Disinfectants, then presented the report of this Committee, which consisted of an elaborate monograph

Dr John S Billings, U S Army, read a paper on

METHODS OF TABULATING PUBLIC RECORDS OF DEATH

After referring to the fact that it is desirable that vital statistics should be published upon some uniform plan, which is at present not the case, he proceeded to define the wants of statisticians and sanitarians which are to be supplied by such tables, and for the sake of simplicity, considered first, the needs of the health officer of a city He desires information of the first appearance of any of those diseases which are liable to become epidemic, of the usual prevalence of any form of disease, of the localities of such prevalence, of the effects produced on health by certain occupations, manufacturing establishments, tenement houses, things which are complained of as nuisances, or by measures taken to effect improvement, such as the introduction of a general water supply, the construction of drains and sewers, etc In order that he may, from the statis tical records, determine where sanitary work is most needed, and whether the steps which have been taken to effect improvement have really been useful or not, he must have the information for individual localities, and sometimes for quite limited ones, as well as for the whole city This information, to be practically useful, must as a rule, be in the form of percentages or ratios, in order to permit of comparisons These ratios should be stated in terms of the living population, furnishing the sickness of deaths under consideration wherever it is possible to give this Hence, it is highly important to know the population of each of the units of area adopted

As a matter of fact, no health officer expects to be able to ascertain the number of cases of sickness in any locality, the best he can hope to do is to ascertain the general character of the prevailing disease, the number and location of cases of a few of the specially contagious forms of disease, and the number of deaths from each cause If he can obtain these promptly and accurately, he will be unusually fortunate, and from these data he can draw valuable inferences as to the amount and character of preventable disease existing in the community at a given time, and also as to the connection between certain forms of disease and death, and the circumstances of the environment, in order to know what diseases are preventable and how this prevention is to be effected

For the first of these purposes, he needs the results as promptly as possible—weekly bulletins are the usual forms in which they are given to the public For the second purpose, careful study of the facts in all their relations is necessary, and also the accumulation of a large number of facts, this requires time, and such studies usually appear in annual reports We have therefore to consider the best means for weekly reports which are essentially reports of warning, provisional and incomplete, and for annual reports which are intended to record the facts as completely as possible, and in the form most convenient for study, which, in other words, are to furnish the materials for vital statistics properly so called As the purposes of these two forms of reports are different, it is not wise to endeavor to combine them, that is, to make the weekly form so complete and elaborate that the annual report shall be little more than a summary of the weekly forms

The forms used in annual reports were then discussed and a table was given, showing for different States and cities the classification of data in regard to deaths given in their annual reports, showing great diversity in the forms used, and that also in many of the reports important information is wanting The important question to be answered by the statistician from the data of deaths and living population in each sanitary unit of an area, such as a ward, county, etc , is, how many persons of each sex, of each age, of each color, died from certain causes, and what is the proportion of such deaths to the number of living population of corresponding sex, age, and color in the same unit of area? It is by no means sufficient to give the total number of deaths of each sex, then of each color, then of each age, etc , even the binary combinations of these as shown in the table, are insufficient to furnish the information which is required to determine the nature of the influences which injuriously affect the health in a given locality Let us suppose, for example, that we are told that in the city of Washington the number of deaths from diarrhœal diseases during the year was much greater in ward 1 than it was in ward 2 The question is as to the cause of this difference This cause might be, first, some difference in the water supply of the wards, as for example, one might get its supply mainly from springs or wells, and the other from the general supply, or it might be due to defective sewerage in one of the wards, or to a greater amount of surface uncleanliness, or on the other hand, it may be due to differences in the character of the population of the wards, the one being inhabited largely by negroes, and the other by whites, or the one have a relatively large number of infants as compared with the other, or it may be due to poverty, producing overcrowding, and improper food supply Now to determine which of these causes has been more especially acting, and in what direction remedial measures are to be applied, we wish to know how many children of each color, black and white, there were living in each ward during the year, and how many children of each color of each year of age under five years of age died from diarrhœal diseases during the year From these data we can soon obtain answers which will narrow the field of inquiry as to the special causes of the prevalence of this form of disease in one of the wards, very greatly, even if we can not completely answer the question

A most important factor in mortality statistics is age Each age is specially liable to certain diseases and injuries, and upon the proportion of persons of certain age groups living, will depend to a considerable extent the general mortality rate, and to a still greater extent the mortality rates from special causes But to obtain from the age data of the dead, the full information which they can yield, it is essential to have the corresponding age data for the living population At present we can only get this with any degree of accuracy by means of an United States or a State census, that is for most places only once in ten years The so called "police censuses" which are taken from time to time in cities are, as usually managed, of little value in determining the number of living population, and give no information as to the age distribution except as to the number of adult males It would not be difficult, however, to obtain from a police census extremely valuable information, not only as to the total number of living population, but as to the number of infants under one year and of children under five years of age, with distinction of color and sex, and to do this with but little more expense and trouble than that required for the present imperfect methods, and this is a matter in which a health officer who is on good terms with the police authorities may effect a great improvement The practical objection to the preparation and publication of tables of vital statistics in the complete forms which I have indicated, is simply that they are expensive, requiring much more time and labor to prepare them, and much more expense for their publication, than do the collection and publication of the simple elementary data of which these compound tables are made up. In a city having twenty wards, the deaths in each ward during the year for each sex, and of each of twenty groups of ages, can be given on a page; if it is to be given for each group of age age for each sex, it will require at least twice this amount of space, and if a total is to be given, as well as that for each sex, it requires three pages. If we add the distinction of, say fifty causes of death, these for the twenty wards would give an addition of two pages. But if the number of deaths at each age, of each sex from each cause in each ward is to be shown, it will require three times fifty, or 150 pages to present this data distinctly.

With reference to methods of compilation, rapidity and accuracy can best be secured by the use of small cards, each one of which is devoted to data relating to an individual. Such cards can be readily distributed into any subdivisions which may be desired and then counted.

The weekly report is not published for the information of the health officer. It is for the information of the people, as a means of education, and for the creation and maintenance of an intelligent public opinion, of which sanitary officials have so much need, and in the absence of which their warnings and recommendations are too apt to be entirely unheeded. It also serves to fulfil a duty which the health officer owes to the sanitary authorities of other localities, viz. the giving them timely warning of any outbreak which threatens the public health. Considered as an educational document, it is very important that the lesson which it is intended to teach should be clearly set forth, and this not to be done by merely giving columns of figures. The significance of these figures should be clearly stated in words, and upon the manner in which this is done will greatly depend the usefulness of the publication. The best means of diffusing this information is through the daily and weekly secular press, which is always glad to obtain and publish it, if furnished regularly, promptly and in proper form. A good rule is to furnish it to the press every Saturday afternoon, closing the record at noon that day.

The chief points of interest for this report are the total number of deaths from all causes, with distinctions of sex, color, age and locality, the number of deaths from certain specified causes, if there is a system of registration of contagious diseases, the number of cases of each of these forms of disease with distinction of color, sex, age and locality, the number of births, with distinction of color, sex, age and locality, and certain ratios to permit of drawing comparisons. It is not desirable in these weekly reports to attempt to give the number of deaths from each individual cause, or from a large number of causes, and such an attempt is one of the most usual mistakes made in this work. The following are the causes of death which should be specified, and as a rule no others should be referred to in the report: Asiatic cholera, yellow fever, small pox, typhus fever, enteric fever, scarlatina, diphtheria, croup, measles, whooping-cough, malarial fevers, erysipelas, puerperal diseases, diarrhœal diseases (including diarrhœa, dysentery, cholera morbus and cholera infantum), cancer and tumors, phthisis pulmonalis, other forms of tubercular disease (including tubercular meningitis or acute hydrocephalus, scrofula and tabes mesenterica), pneumonia, other acute lung diseases, old age, childbirth, stillbirths, accidents, homicides, and suicides.

The units of area for which these are to be reported should, as a rule, be the wards of the city, but to this rule there should be some exception. In the first place, it sometimes happens that the ward lines are fixed for purely political purposes, enclosing extremely irregular areas, having no relation to topography. This, for instance, is the case of the present wards in the city of Baltimore. In such a case the ward divisions are absolutely useless for the purpose of the sanitarian and statistician, and should be abandoned; the health officer making his own divisions in accordance with the topography and the character of the population. In such a case he should endeavor, when a census is taken, whether this be done by the city, State, or United States authorities, to have the results of such census furnished him in a form corresponding with the divisions which he has adopted.

It is often desirable for special purposes in certain localities, and for a short time, to make use of smaller units of area than the ward, that is, to give the number of cases of, and deaths from, certain diseases in a certain square or block, or in the vicinity of certain slaughter-houses, hospitals or other establishments which may be suspected of exerting deleterious influence on the public health, and in some cases the publication for a few weeks of the death record of a particular tenement house or foundling asylum, will interest the public and have a good effect.

Some of the weekly forms of reports actually employed by different cities were then shown and commented on. The summary of the weekly writings issued by the Registrar General of England was pointed out as a model for such writing. The weekly bulletin of the City of Brussels, issued by Dr. Jansens, was also pointed out as a model. It was advised that the weekly report, as a rule, should be published by giving it to the daily press, and that the separate bulletin had better be in a monthly, rather than a weekly form. Statistical reports of disease, or mortality statistics, can, as a rule, only be obtained for a few of the contagious or spreading diseases, with regard to which compulsary notification is enforced. The exception to this rule occurs in the army and navy and in the police force of some cities, where all cases of excuse from duty are recorded, with the cause of the exemption. The reports of prevailing diseases published by the Michigan State Board of Health, are statistics of the opinions of physicians as to the relative prevalence of certain forms of disease, and not of the actual number of cases. Where there exists in a city a system of compulsary notification of cases of contagious and infectious diseases, the number of cases of each kind of disease should be reported weekly with distinction of sex, color and ward, and of age. There are sometimes great difficulties in the way of doing this owing to the pressure which commercial interests exert upon the health authorities or Registrar, and on the public press, to prevent the publication of what seems likely to injure the business interests of the city Unless one has had some personal experience of the intensity and magnitude of this sort of pressure, he can not estimate the difficulty of resisting it Nevertheless, the attempt to conceal the extent of prevalence of an epidemic in a city is always a short sighted policy, because it always gives rise to exaggerated rumors as to the amount of disease present, and thus really tends to increase rather than to allay panic in neighboring communities Moreover, when it is discovered that a health officer has attempted to conceal this kind of information in one instance, he becomes an object of suspicion to other sanitary authorities, and his statements though truthful, are not believed I think his wisest course in all cases, is to furnish the press with full, accurate, reports of prevailing sickness and deaths so far as he has the data to do so, and thus avoid the responsibility of concealment

There are several sources of information with regard to the amount and character of disease prevailing in a city of which the health officer can with a little tact and management avail himself, and which it seems to me are too much neglected There are the public dispensaries and other institutions for the treatment of the sick, including the city physicians to the poor, the prisions, reformatories and asylums, and the public schools From all these, certainly from all of them which are supported from the public funds, he should be able to obtain reports showing the amount and character of the diseases coming under their notice

In conclusion attention was called to the importance of the use of graphic representations of the results of studies of vital statistics to be given in the forms of diagrams and shaded maps While such illustrations are somewhat costly and in one sense add nothing to the information derived from the tables from which they are compiled, they are an extremely important means for the diffusion of this knowledge, for educating the people as to the value and uses of vital statistics—and such education is now of prime importance to all who are interested in sanitary matters—it is in fact, a necessity if we are to make substantial progress in preventive medicine

Dr Henry B Baker, of Lansing, Mich , read a paper entitled

NOTES ON THE RELATIONS OF RAINFALL AND WATER-SUPPLY TO CHOLERA

He distributed copies of a table exhibiting the monthly mortality from cholera in Calcutta during the past twenty years, also diagrams showing the relations of rainfall to cholera One diagram included records of the monthly rainfall in Calcutta for forty-eight years, and statistics of over 600,000 deaths from cholera in the endemic area about Calcutta A striking relation of rainfall to cholera was shown to exist at almost every reason of the year, and he offered in explanation a probable reason for the apparent want of relation at the exceptional time, which is about the coldest season being briefly, that not so much water is drank at that season, and therefore there is less opportunity to contract cholera by the use of bad water, and especially as at such times some of the tanks and other objectionable sources of water are entirely dry

Dr D E Salmon, Chief of the Bureau of Animal Industry, read an interesting paper on

THE VIRUS OF HOG CHOLERA

He briefly referred to the wide dissemination of this disease, to its fatality, and the heavy losses annually occasioned by it in almost every locality in each of the States and Territories, and while it has never been shown that the malady may be transmitted to man, there are many reasons why it is deserving of profound study, by all who are interested in questions concerning the public health The number of hogs which die of this disease in this country annually reaches into the millions, and some disposition must be made of the carcases That disposition *may* be a matter directly bearing upon the health of our people Often these carcases are left to putrefy in the open air, or to be preyed upon by carniverous animals and birds, sometimes they are thrown into the ponds and streams which furnish drinking water to our cities, sometimes the lard is rendered from them, and what finally becomes of this product is an interesting subject for speculation Occasionally they are burned or buried, but only occasionally When this plague breaks out in a herd, the owners of swine in the vicinity often commence to ship their animals at once to escape its ravages, As a result, the disease is found in the great central stock-yards from which thousands of animals are taken every day and killed for packing Some of these have undoubtedly been infected and are passing through the incubative stage of the plague, in others the disease may be developing, and with the most careful inspection would pass unnoticed What would be the effect of the meat from such animals upon human health? Perhaps none of us can answer this question satisfactorily The flesh of diseased hogs may be practically harmless, or it may be the cause of some of the obscure maladies which the physician daily meets in practice To solve these problems definitely, it seems evident that one line of investigation must deal with the virus itself, its nature, its effects upon other species of animals, the period during which it retains its virulence after the death of its host, the durable chemical substances which it may form, and last, though not least, the septic complications which may accompany it

The study of this virus is also of peculiar interest to us, because of its bearing upon the general subject of contagion The science which treats of this important class of phenomena is still in its infancy A decade has scarce passed since Koch laid a substantial foundation for the germ theory of disease in his studies of the *bacillus anthracis*, the germ of malignant anthrax or charbon But charbon is not a virulently infectious malady The virus seems to multiply in certain soils, and is taken into the system with the food This disease is rather an endemic than an epidemic or epizootic Of the great epidemics, but few if any of the germs from which they arise have been satisfactorily determined. Fowl cholera is an example of an animal plague which is in no apparent degree limited by conditions of climate and soil. While epizootic, it seemed, after a long series of experiments, that the virus was not disseminated through the air, but that it was necessary for it to be ingested into the food or inoculated into the tissues to produce the malady. While this affection is caused by a micro-organism, we still lack an example of a virulently infectious disease caused by a bacterial organism, the contagion of which is disseminated through the atmosphere and when inspired with the air infects the animal. That hog-cholera is thus disseminated appears to be accepted by all who have studied it.

The isolation of the micro-organism which produces the disease, and the demonstration of its pathogenic action has been a most difficult task. For seven years this study has been constantly going on in Europe and America; the most competent investigators in this line of work have devoted their attention to it; every method that the latest developments of science have suggested has been applied to the problem, and yet, when the impartial reader approaches the subject and attempts to reach a conclusion from the literature attainable, his first decision will undoubtedly be that bacteriology is anything but an exact science.

The virus has been described under many different forms, and the speaker had not found, in connection with any other subject, so much of apparently scientific and convincing evidence which leads to so many different conclusions.

Dr. Klein described a micrococcus in 1876 without attributing pathogenic properties to it. In 1878 he stated that the cause of the disease was a bacillus which grows in long leptothrix filaments and forms spores. His inoculation experiments in most cases failed to produce severe disease with cultivated bacilli. Recently he described a different bacillus, which does not exceed five micro-millimetres in length, as the cause of the malady. This germ kills pigs, mice, and rabbits, but does not affect pigeons.

In 1880 and succeeding years the speaker found a micrococcus in a number of outbreaks. This germ was cultivated, and when used for inoculation produced disease. The effects were variable and the virulence was soon lost by cultivation. Further investigation showed that, in the advanced stages of the malady, it was complicated with septic infection and several different organisms could be found in the tissues. This made it necessary to discriminate between septic germs and the essential virus.

By studying each species of germs separately a very virulent bacterium has recently been discovered, which produces a disease in pigs having all the characters of swine plague, and kills mice, rabbits and pigeons. This bacterium is easily found in very acute cases, but in chronic cases the septic infection becomes more prominent and masks it. It remains to be determined if the outbreaks in other parts of the country are caused by this organism.

In 1883, Pasteur stated that the cause of *rouget*, believed to be identical with hog cholera, was a dumb-bell shaped microbion, which killed pigeons and rabbits, and which might be attenuated and used as a vaccine to prevent this malady.

Scientific men have been surprised to find that the active principle in the *rouget* vaccine now sent out by Pasteur is a fine bacillus, and an entirely different germ from that described in 1883.

Dr. Loeffler has studied the *Rothlauf* of Germany, believed to be the same disease as *rouget*, and finds it caused by a fine bacillus apparently identical with that in Pasteur's vaccine. The period of incubation of *Rothlauf* is much less than that of hog cholera, and there is an absence of that ulceration of the intestines which is the most characteristic lesion of the American disease.

Pasteur's vaccine had been tried. Its effects were not uniform or reliable. Of four pigs vaccinated with first vaccine, one died; the others showed no effects. The three remaining animals were treated with second vaccine, and a fourth was placed with them, which received a very large dose, about a drachm, of this. None of these were affected. They were then exposed to hog cholera and three of the four contracted the plague and died.

It is not considered possible that the fine bacillus described in France and Germany is the cause of our hog cholera, as it has never been found in the spontaneous cases here. It was, however, easily demonstrated in the body of the animal that died of Pasteur's vaccine. It was concluded, therefore, that this vaccine could not prevent the American swine fever, but might be the means of introducing a different disease that would increase instead of diminishing our losses.

(*To be concluded.*)

CHICAGO MEDICAL SOCIETY

Stated Meeting, November 16th, 1885.

The President, C. T. Parkes, M.D., in the Chair.

Dr. J. M. G. Carter, of Waukegan, read a

REPORT EMBODYING TWO HUNDRED CASES OF TONSILITIS

After detailing the treatments which had been employed in the cases, the author advanced the theory that since the great majority of the cases occurred during March, April and May, when northeast winds prevailed, carrying landward more moisture from Lake Michigan, these winds must be one of the causal factors in the production of tonsilitis. Also, the test for ozone during these months showed a greater percentage of ozone in the atmosphere. Another fact was noticed, that a great many cases occurred in rheumatic patients. The author was of the opinion the epidemic of cares detailed was due to the damp northeast winds, containing an excess of ozone, and to unusually disturbed electrical conditions of the atmosphere. The author grouped the two hundred cases, without classifying them, into cases of simple, diphtheritic or scarlatinous tonsilitis. He mentioned, however, the fact that simple tonsilitis were often accompanied or followed by attacks of diphtheria or scarlet fever among other members of the family

Dr F O Stockton said that we have tonsilitis in nearly all the eruptive fevers, usually following, and occasionally preceding them The author refers to cases having diphtheritic patches on the tonsils, I think he has confounded these diphtheritic cases with what specialists call follicular tonsilitis It is not a diphtheritic condition at all, but resembles it very greatly, so that in a differential diagnosis these cases are very often confounded In regard to the temperature going up to 104, it is my experience, and that of authorities such as Cohen, Bosworth and Robinson, that it ranges from 102 to 103, seldom more than 103, usually 102 In the treatment of tonsilitis I have never found a gargle effective In diphtheria or acute tonsilitis we may give chloride of potash, or any other drug, but when a man has a pain in the angle of his jaw and a throat so sore he cannot swallow, he cannot gargle Ice held in the mouth until it dissolves is good, also powder or tincture of guaiac and tincture of aconite internally, but more than three doses of aconite should not be given in one day Occasionally, a case is going on to suppuration, use hot applications externally and internally in the way of steam, otherwise never use hot applications My idea is that heat promotes congestion more than cold, and my experience is that where cases are treated, some with cold and others with hot applications, that the cold in connection with other treatment, guaiac and tincture of aconite, is most successful We ought to settle this question of tonsilitis What is acute tonsilitis, and is there such a thing as acute tonsilitis? To me it is a misnomer The abscess seldom forms in the tonsil, it is behind it in the loose connective tissue, and in opening it we cut behind or above the tonsil

Dr C W Earle asked Dr Carter if there was any appearance of contagion in any of the cases?

Dr Carter said that frequently the disease will attack everybody in the family, old and young, and just as frequently but one or two in the family have the disease It sometimes appears to be contagious

Dr G C Paoli said that tonsilitis is a very common disease in Chicago, especially among children It is certain that there are different degrees of tonsilitis, there are light cases in which very little medicine is required, and again there are strumous children who are very susceptible to the changes of weather, and in inclement weather get wet and have tonsilitis In some cases one tonsil is affected, in others both, or the pharynx There are grave cases that cannot be cured in one week, or two, cases that develop into hypertrophy of the tonsils In regard to treatment, a light case does not require ice, and a person with malignant scarlatina with tonsils affected would take cold from the application of ice We should discriminate, and in malignant cases when the tonsils are inflamed should be careful about applying ice In the use of aconite with children we should be very careful, as in fever it diminishes the circulation, and I would not recommend its general use unless you can see the patient two or three times a day and watch the effect of the aconite A simple thing to use is a little potash with tincture of iodine In scarlatina complicated with diphtheria it is better to use very little medicine I have nothing against chlorate of potash, but I have read a very interesting paper by a professor in New York, whose name I do not now remember, who says that observation has shown that chlorate of potash has often produced nephritis, and I think great care should be taken in its use

Dr R Tilley said that one of the points brought forward by the author is the use of kerosene Besnier, a professor of skin diseases in Paris, says that kerosene is used extensively by the laity, but he regards it as a dangerous remedy in the hands of people generally, and a very inefficient one, he was speaking, it is true, of treatment of itch He protested against the use of the terms ozone and electrical conditions of the atmosphere, we know practically nothing about either

Dr W E Quine said that an interesting feature of the experience embodied in the paper is the obvious failure of the writer to differentiate infectious from non infectious tonsilitis I presume it is a matter of familiar observation to all who have been long engaged in the practice of medicine that many cases of follicular tonsilitis occur which baffle the judgment of the most experienced physician to determine with precision whether they are infectious or non-infectious I have often seen in my own practice cases of this kind Often one member of a family, probably the first one attacked, exhibits plainly marked features of simple follicular tonsilitis, and those of the family who sicken afterwards exhibit the phenomena of diphtheria, or less frequently, scarlatina The text-books do not give a reliable guide to diagnosis, and if any of my colleagues know of means by which cases of this kind can be differentiated with certainty we would like to know them Jacobi in a recent article maintains very vigorously that many cases of so called tonsilitis are in reality immature cases of diphtheria, and he stoutly maintains that there are many cases of diphtheria never having patches in the throat, and the patient walks on the street and communicates the disease freely to those with whom he comes in contact

Dr Sarah Hackett Stevenson said that in February, 1885, she was called to see a lady who had frequently suffered from tonsilitis She was "subject to quinsy" I suggested that her child should not be kept in the same room with her, as the case seemed more than ordinary violent, and gave the usual treatment for quinsy, the disease went on to suppuration I was called out of the city after one of the tonsils had discharged, and during my absence, about five days, her child was attacked with malignant scarlet fever, and died before my return This is the first case in which I ever suspected that a benign form of tonsilitis might reproduce a malignant form Since then I have watched all cases, however simple they may seem

Dr C T Fenn said that he thought to regard these cases all as malignant is to be on the safe side A case of simple tonsilitis has a tendency to develop into diphtheria He protested against the folly of attempting to distinguish between mild and simple cases of tonsilitis and diphtheria. In regard to treatment, he has no use for gargles or washes, he will not force open the mouth of a child and cause it to cry, but steadily and persistently, every fifteen minutes, he gives such medicines as the child will carry over the tonsils when swallowing.

Dr. J. S. Knox regretted that the paper was so general, the author evidently grouping together a variety of cases of tonsilitis of different classes. There is undoubtedly an inflammation of the tonsils due to eruptive diseases, such as small-pox and scarlet fever, and there is a tonsilitis which is purely catarrhal, and another which is purely due to diathesis and which is rheumatic or syphilitic. The treatment differs accordingly. He thought there is an error as to the value of chlorate of potash, better results will be obtained from the use of bicarbonate of potash, the value of the drug lying in the fact that it is a potash salt, and I think that the bicarbonate of soda would be still much more efficient. Where the hyposulphite of soda would do good, the salicylate would do more.

Dr. J. J. M. Angear thought that if we remember that there is such a thing as resistance, the absence of which is susceptibility, it will explain some, if not all of these difficulties. We can readily imagine a robust, healthy child with strong resistance to morbid influences, and especially that of diphtheria, on exposure, would have simple tonsilitis (abortive diphtheria), but suppose that his brother, with strong susceptibility, is exposed to the same morbid influences, he will develop a case of undoubted diphtheria.

In diphtheria, we have an inflammation with fibrinous exudation which breaks down the mucous cells and forms the diphtheritic patch, this furnishes a nidus for the micro organisms, which go on secreting or fermenting their peculiar virus, the absorption of which contaminates the whole body, and now we have a constitutional disease. Will not this explain a large number, if not all, of those cases where four or five children in a family are taken down apparently with simple tonsilitis, and some one child that has not their resistance is attacked with undoubted diphtheria. In this house we have tonsilitis, and our neighbor severe diphtheria. By remembering these pathological facts, we shall see that it is, or may be, all the same morbid influence here and yonder—here, recovery in a few days, there, death in a few hours.

Dr. F. O. Stockton said that in acute tonsilitis he thought it will be found that ice is the proper treatment in the first stage, before suppuration has begun. It is very seldom that pus is located in the tonsil, it is behind the tonsil. With regard to a differential diagnosis between diphtheria and tonsilitis, there is almost always in diphtheria a regularly graded rise in the temperature, in acute tonsilitis, so called, or follicular, the temperature is not regular, it rises at a jump, the attack comes on suddenly, begins with a chill immediately followed by fever, in diphtheria there is a gradual rise, going up one day, dropping the next. He thought if we took a record of given cases of diphtheria and tonsilitis, we should find that a regular rise in temperature in diphtheria occurs in the essential fevers.

Stated Meeting, December 7, 1885.

THE PRESIDENT, CHAS. T. PARKES, M.D., IN THE CHAIR.

Dr. E. F. Wells, of Minster, Ohio, read a paper on

PNEUMONIC ABSCESS.

(See p. 675.)

Dr. Christian Fenger said that an interesting point in the paper is that the author takes the ground of the clinical and, perhaps, conservative man. Dr. Wells claims that we should not operate on the small abscesses, but only on large ones, as the latter are the more dangerous. Dr. Fenger believed that we should operate on all of them when indicated. Buhl, in Christiania, has operated on nineteen cases in which there were cavities. Up to the present time, we have reports of about thirty cases in which operations have been performed, but only seven of these cases have been such as reported by Dr. Wells, or abscesses incident to pneumonia. Since there have been only seven cases of abscesses of the lungs, incident to pneumonia, it stands to reason that these cases were severe ones, and that the abscesses were large. Dr. Fenger did not believe there had been much operating on small abscesses as yet, however, he would advocate it in case these abscesses were accompanied by a fetid bronchitis. There is an abscess cavity, which Rokitansky calls a chronic abscess, in which there is not connective tissue enough to allow the cavity to close. This cavity is a source of danger to the patient, as sometimes, for one reason or other, septic micrococci gain entrance, acute inflammation or gangrene follows and the patient dies. In such a condition, we should try to obliterate the cavity. Operative treatment of these abscesses has been so infrequent that we cannot say that it possesses any advantage over medical treatment. The important point to be decided in the future is how to get an understanding of where the danger-line is, how long we can afford to wait and how much strength can we afford to let the patient lose before we operate? It is, perhaps, well to put in a word of warning against operating too early, as we are all aware that patients who recover without an operation do better than those on whom there have been operations. Dr. Fenger said that, in case a cavity gives rise to fetid breath, frequently a fetid bronchitis is developed, and subsequently an inter lobalular pneumonia in the other lung, or in the upper part of the lung in which the abscess exists. Relative to Dr. Wells's remark that he never suppresses the cough, Dr. Fenger stated that it is a fact that the cough ceases almost instantly after the abscess is opened.

Dr. R. Tilley said that he could not see of what benefit inhalations of turpentine could be in such cases, as the abscesses are analogous to those which occur in the more external portions of the body, and we never expect to benefit them by using turpentine. He would expect better results from administering this medicine internally, as he had, recently, read that the German physicians are using turpentine very successfully, by giving it internally, in diphtheria.

Dr. Wells, in closing the discussion, said that he wished to recall the attention of those present to the important point that these abscesses occur most frequently in the lower lobe of the lung, similarly to pneumonia. The principal object of his paper was to do what he can to counteract the tendency among the medical journals to advise early operation in pulmonary abscesses. He thought the statistics, so far, do not prove the operative treatment to be superior to the expectant and medicinal treatment, and he thought surgeons were too prone to take the cases into their own hands, and that they do not leave enough to the *vis medicatrix naturæ*.

MASSACHUSETTS MEDICAL SOCIETY—SUFFOLK DISTRICT.

SECTION FOR CLINICAL MEDICINE, PATHOLOGY AND HYGIENE.

ALBERT N. BLODGETT, SECRETARY.

Meeting of November 11, 1885.

FREDERICK I. KNIGHT, M.D., IN THE CHAIR.

(Concluded from page 668.)

DR. VINCENT Y. BOWDITCH read a paper on

A CASE OF PHTHISIS WITH BACILLI, COMPLETE ARREST OF THE DISEASE.

(See page 654, JOURNAL of December 12.)

DR. HENRY I. BOWDITCH, stated that practically he had for many years considered consumption to be a contagious disease under certain conditions. He always advises husband and wife to sleep in separate beds, and he much prefers them to occupy different rooms. There is no longer a reasonable doubt that the bacillary organisms found associated with tuberculosis have the power to produce that disease. The many and careful series of experiments so extensively performed and reported in Europe, are convincing upon this point. The main question now seems to be this: What influence does the presence of bacillary organisms exert upon our opinions in diagnosis and in prognosis? Where do we stand in relation to these bodies in the actual treatment of tuberculous diseases? When the bacillus was first discovered in connection with tuberculosis we were inclined to look upon its presence as a sign of the gravest significance. These first opinions are at present undergoing a modification as we observe cases in which the undeniable presence of the bacillus is not necessarily followed by a fatal course of the disease.

The case reported at this time, as well as others recently published, show that we need not feel entirely discouraged when bacilli are present, and conversely, we should not be so highly encouraged when they are absent. We do not yet know the absolute value of the entire relation of the bacillary organisms to the course or termination of diseased conditions, nor their full bearing and influence upon diagnosis or prognosis.

DR. KNIGHT said that he had seen a case in the early summer of 1884, in consultation with a practitioner of a neighboring city, in which the symptoms were quite acute, and in which the fears of rapid future progress were increased by finding numerous bacilli in the sputa. Contrary to expectation, however, the patient, who was a young lady, soon began to improve, and at last accounts had no cough, considered herself well, and had every appearance of being so.

Dr. Knight said that such cases in reality only confirmed what we know before, that is, that arrest may take place in pulmonary tuberculosis. Perhaps hitherto, in cases of arrest, we have been inclined to doubt the tuberculous nature of the disease. We can no longer feel this doubt.

DR. CUSHING stated that the higher degree of infectiousness of tuberculosis among animals who were subjected to experiment was no doubt due in some measure to the fact that the healthy animals are frequently placed in pens which have been occupied by diseased animals, and that quite possibly the cages themselves may contain the germs of tuberculosis and thus render the animals confined therein more liable to tuberculosis. It is a very suggestive fact that in the experiments to determine the infectiousness of tubercle germs when suspended in vapor, the spray was conducted out of the building in which the laboratory was situated, to cages some feet away, and the windows and doors of the laboratory were kept carefully closed during the experiment. Every one of the animals thus exposed to the tuberculous spray became affected with general tuberculosis. This fact should be a sufficient indication for all possible care in averting contagion in the human tuberculosis. The disease is clearly to be classed not only as communicable, but as a highly infectious one, and should be treated as such.

STATE MEDICINE.

THE POWERS OF THE ILLINOIS STATE BOARD OF HEALTH.

Judge McAllister recently delivered the opinion in the case of Lucas R. Williams against the people and others. Williams was indicted in the criminal court for the alleged violation of the act regulating the practice of medicine in Illinois. He pleaded guilty, was tried, convicted, and sentenced to pay $50 fine. He appealed the case upon the claim that he graduated at Rush Medical College February 16, 1875, while the act was passed May 29, 1877, and that consequently the act did not apply to him. The Board of Health granted him a certificate after the passage of the act, but subsequently, in 1880, revoked it. The appellate court reverses the judgment of the court below and remands the case. It holds that the statute of 1877, being penal, must be construed strictly. The State Board of Health was not a judicial body, and its powers did not exceed those conferred in the act. Under it its only powers related to those physicians having diplomas and those having none. As to the former, its only duty was to verify the respective diplomas and identify the persons claiming them. As to non graduates the Board had unlimited power. The right of the Board to re-

cases of tonsilitis
ment, he has n who had certifi-
not force op Williams had a diploma,
cry, but st no right to revoke his certificate
utes, he could not have intended to invest
over th an absolute power over the reputa
of graduates of medicine, as no
of appeal was provided for It never
that the Board should, by a fiat, say who
d who should not practice, and strip them
e value of years of study The case was there-
remanded

THE PENNSYLVANIA REGISTRATION LAW,

Section IV of the Pennsylvania registration law of 1881, requires that diplomas outside of the State must receive the endorsement of a recognized Medical Faculty within the State before registration, but before giving such, the Faculty must be satisfied as to the qualifications of the applicant, and as the endorsement of a diploma is an acknowledgement of the qualifications of its holder as well as of its genuineness, the Faculty of the Medico-Chirurgical College of Philadelphia desires to announce that it will endorse no diploma for registration until the holder thereof passes a satisfactory Medical examination The fee for such examination is $30

P D Keyser, M D, *Dean*
W F Waugh M D, *Secretary*

DOMESTIC CORRESPONDENCE

LETTER FROM NEW YORK

(FROM OUR OWN CORRESPONDENT)

The Late Dr Elsberg—Fractures of the Upper Extremity—New Splint for Fractures of the Lower End of the Humerus—Action of the Academy in the Case of Dr Purdy—The Willard Parker Hospital—General Shaler—Children Bitten by a Mad Dog—Cremation—Dangers of Large Cemeteries

At a meeting of the Academy of Medicine held December 3, Dr Morris H Henry read a review of the life of the late Dr Louis Elsberg and of the advancement of our knowledge of ses of the throat during his professional career

Dr Samuel W Smith read a ug-
al Deductions based on the ed
ses of Fracture of the Upp
ing the Hand" During the
Dr Smith exhibited a new ap
ment of frac of the clavicle
secured in her string, is
backwards of straps p
band which n the ax
side and fast the shou
Dr Smith d a ne
of the lower merus
which he clai ly c
satisfactory re
disappointmen
the more seve
had set him to

requisites (1) To hold the fragments firmly in apposition (2) To allow the forearm to be flexed and extended, pronated and supinated (3) To lengthen or lessen the external angle of the arm with fixation (4) To leave the entire elbow joint exposed for the purpose of making local applications during the whole time of wearing the splint, without disturbing the latter Such an apparatus he had accordingly devised, and it consists of two rods of untempered steel, with ball and socket joint, and fixation screws at the elbow and wrist, the rods being secured to the arm and forearm by means of plaster-of-Paris bandages

At this meeting Dr Agnew presented a resolution, which was unanimously adopted, to the effect that, in the opinion of the Academy, any judicial action which tends to prevent the early reporting to the Board of Health, on the part of the medical profession, of cases of contagious disease, is contrary to public policy and detrimental to the public health This had special reference to the recent case of Brown vs Purdy, in which the Drs Purdy were fined $500 because a patient of theirs was sent to the small pox hospital by the sanitary authorities to whom they had reported the case, the plaintiff claiming that she did not have varioloid, as asserted by the physicians, and asking for $10,000 damages Unless medical practitioners can have some guarantee that they are not liable to such prosecutions as this, the number of contagious diseases reported in this city is likely to be uncommonly small for some time to come

At the same meeting a communication was read from the Health Department, announcing that the New Willard Parker Hospital, in East 16th St, is now open for the reception and treatment of cases of contagious disease, and inviting the President and Fellows of the Academy to visit it and inspect its accommodations It is provided with a resident physician and a corps of trained nurses, and is designed for the treatment of patients suffering from such diseases as scarlet fever and diphtheria, who cannot receive proper care in their own homes

General Alexander Shaler, the President of the Board of Health, has been charged with bribery as a member of a commission to select and purchase for the city three sites for armories for militia regiments, and required to furnish bail to the amount of $10,000 On account of his honorable record as a soldier and a citizen, and the high esteem in which he has always been held in the community, it is to be hoped that the General will be able to fully clear himself of these
ave accusations against him It is doubtful, how-
ever, w ther the administration of the Health De-
m as been as efficient under his management
hat of his admirable predecessor, Prof
handler At the same time, the expenses
ent have been considerably greater
Chandler was at its head Thus, a
Col Emmons Clark, the Secretary
Health, in explaining the routine
latter before the State Senate
ttee, showed that soon after
President he put his military
dividing the working corps of

the Department into seven divisions, each under the direction of a chief at a salary of $3,000 a year, thus causing an increased annual expenditure of $21,000 for work which was formerly attended to by the Sanitary Superintendent, Dr. Day, who is still the Executive officer of the Board, and to whom all the chiefs of divisions are responsible. It was also shown that there was greatly increased expenditure for clinical service.

Six children in Newark, N. J., were bitten by a rabid dog while on their way to school on the 2d of December. On the following day Dr. O'Gorman, of that city, published a card advising the parents of the children to send them to Paris to be treated by Pasteur, and asking for a public subscription for the transportation of those whose parents cannot afford the expense. At the same time, he cabled to the great French savant, inquiring if he would take charge of the cases if they were sent to Paris. On December 4 Pasteur replied that he would do so, and accordingly four of them are to be sent, a sufficient amount of money having been subscribed to ensure the payment of their expenses. A consultation of physicians has been held at the office of Dr. Herold, President of the Newark Board of Health, in regard to the matter, and it is probable that Dr. Frank S. Billings, of New York, will accompany the children to France, and make a study of Pasteur's methods with a view to introducing his prophylactic treatment of hydrophobia into the United States. The parents of two of the bitten children refused to allow them to go.

The first human body was successfully incinerated at the new Mount Olivet Crematory at Fresh Pond, Long Island, December 4. It was that of an Austrian formerly living in this city, but who had of late resided in Hoboken, across the river. He died about a month previously, and had especially requested that his remains should be cremated. The whole crematory building is not as yet by any means completed, but the incinerating apparatus has been put in working order. The structure is of brick and marble, and the architecture is a modification of a Greek temple. About forty bodies are now awaiting cremation here. Mr. Erastus Winan has just purchased a farm on Staten Island, on which another crematory is soon to be erected.

One of the dangers from large cemeteries has just been illustrated at the village of Nyack, on the Hudson. For some time past there has been a growing feeling among the inhabitants that the water courses running towards the village might become polluted by the increasing number of bodies buried in the Oak Hill Cemetery, near its northwestern portion, and recently the State Board of Health has been asked to make a full investigation of the matter. This has now been done, and the reports of Dr. Alfred L. Carroll, Secretary and Executive Officer of the Board, Horace Andrews, civil engineer, and William Halles Jr., who made the analyses of the water in the vicinity of the cemetery, which have just been made public, clearly point out the danger from this source, and at the same time make such suggestions as will lead to the obviation of the difficulty as far as possible. In the course of his report Dr. Carroll says "The dangers arising from decomposition of animal matter in burying grounds vary with the character of the soil, but under any circumstances the difference is rather one of degree than of kind. In porous soils such decomposition takes place most rapidly, complete decay of the body sometimes occurring in a very few years, but these soils permit the greatest diffusion of gaseous and dissolved products. In the case under consideration, with gravelly superficies underlaid by almost impervious strata, such wide diffusion of the rapidly produced liquefied results of putrefaction would be particularly favored. It has long been a matter of common experience that low fevers and various forms of 'filth diseases' are apt to prevail in the neighborhood of old burying grounds where population gathers around them." P. L. P.

BOOK REVIEWS

FACE AND FOOT DEFORMITIES. By FREDERICK CHURCHILL, C. M., Surgeon to the Victoria Hospital for Children. With Illustrations of New Appliances for the cure of Birth-mark, Club foot, etc. 8vo, pp. xvi, 195. Philadelphia P. Blakiston Son & Co., 1885. Chicago W. T. Keener.

The reason for combining so diverse topics as are indicated in the title of this book will be found in the author's own words in the preface, as follows "It may be asked why I should associate the face with the foot, as these are the two extreme parts of the body? Chiefly because deformities of these members of the body being more manifest than deformities elsewhere, they constitute a greater hindrance to success in life. They not only deform, but deface by reason of their great disfigurement, the artistic proportions of those parts of the body upon which the eye of the observer most loves to rest."

This short excerpt explains, so far as need be, the meaning of the alliterative title, "Face and Foot," and serves at the same time as a fair example of the writer's very defective and unpleasing literary style. But while his sentences are far less skilfully framed than those which lend a charm to the writings of Jonathan Hutchinson and others of our best medical writers, he nevertheless has much of value to tell in this book about nævus and club foot, the two affections with which it is chiefly concerned. It is to be noted that the comparatively new and highly successful practice of treating nævi by the needle cautery and perforated metallic plates, is here for the first time adequately set forth. Very sensible directions are also given for the detail management of face eruptions, parasites, sebaceous cysts, dental abscesses, hare lip, salivary fistula, excess of hair, etc., as well as affections of the eye. The latter half of the volume (pp. 117 to 185), treats of injuries as well as deformities of the foot, of corns and chilblains, onychia, ulcers, and all the deformities to which ill fitting boots give origin. The congenital and paralytic deformities are also fully considered. The large number of colored lithographs and wood cuts which adorn the book add greatly to its value.

voke diplomas went only to those who had certificates after examination Williams had a diploma, and the Board had no right to revoke his certificate The legislature could not have intended to invest the Board with an absolute power over the reputations and fortunes of graduates of medicine, as no notice or right of appeal was provided for It never intended that the Board should, by a fiat, say who should and who should not practice, and strip them of the value of years of study The case was therefore remanded

THE PENNSYLVANIA REGISTRATION LAW,

Section IV of the Pennsylvania registration law of 1881, requires that diplomas outside of the State must receive the endorsement of a recognized Medical Faculty within the State before registration, but before giving such, the Faculty must be satisfied as to the qualifications of the applicant, and as the endorsement of a diploma is an acknowledgement of the qualifications of its holder as well as of its genuineness, the Faculty of the Medico Chirurgical College of Philadelphia desires to announce that it will endorse no diploma for registration until the holder thereof passes a satisfactory Medical examination The fee for such examination is $30

P D Keyser, M D , *Dean*
W F Waugh M D , *Secretary*

DOMESTIC CORRESPONDENCE

LETTER FROM NEW YORK

(FROM OUR OWN CORRESPONDENT)

The Late Dr Elsberg—Fractures of the Upper Extremity—New Splint for Fractures of the Lower End of the Humerus—Action of the Academy in the Case of Dr Purdy—The Willard Parker Hospital—General Shaler—Children Bitten by a Mad Dog—Cremation—Dangers of Large Cemeteries

At a meeting of the Academy of Medicine held December 3, Dr Morris H Henry read a review of the life of the late Dr Louis Elsberg and of the advancement of our knowledge of diseases of the throat during his professional career

Dr Samuel W Smith read a paper entitled "Original Deductions based on the Study of One Hundred Cases of Fracture of the Upper Extremities, excluding the Hand" During the reading of the paper Dr Smith exhibited a new apparatus for the treatment of fracture of the clavicle, in which the elbow, secured in a leather string, is drawn inwards and backwards by means of straps passing to a padded band which is placed in the axilla on the opposite side and fastened above the shoulder

Dr Smith also presented a new splint for fractures of the lower end of the humerus involving the joint, which he claimed was the only one that would ensure satisfactory results A varied experience, full of disappointments, in the use of the known splints for the more severe fractures of the condyles, he said, had set him to work to make one with the following requisites (1) To hold the fragments firmly in apposition (2) To allow the forearm to be flexed and extended, pronated and supinated (3) To lengthen or lessen the external angle of the arm with fixation (4) To leave the entire elbow joint exposed for the purpose of making local applications during the whole time of wearing the splint, without disturbing the latter Such an apparatus he had accordingly devised, and it consists of two rods of untempered steel, with ball and socket joint, and fixation screws at the elbow and wrist, the rods being secured to the arm and forearm by means of plaster-of-Paris bandages

At this meeting Dr Agnew presented a resolution, which was unanimously adopted, to the effect that, in the opinion of the Academy, any judicial action which tends to prevent the early reporting to the Board of Health, on the part of the medical profession, of cases of contagious disease, is contrary to public policy and detrimental to the public health This had special reference to the recent case of Brown vs Purdy, in which the Drs Purdy were fined $500 because a patient of theirs was sent to the small pox hospital by the sanitary authorities to whom they had reported the case, the plaintiff claiming that she did not have varioloid, as asserted by the physicians, and asking for $10,000 damages Unless medical practitioners can have some guarantee that they are not liable to such prosecutions as this, the number of contagious diseases reported in this city is likely to be uncommonly small for some time to come

At the same meeting a communication was read from the Health Department, announcing that the New Willard Parker Hospital, in East 16th St , is now open for the reception and treatment of cases of contagious disease, and inviting the President and Fellows of the Academy to visit it and inspect its accommodations It is provided with a resident physician and a corps of trained nurses, and is designed for the treatment of patients suffering from such diseases as scarlet fever and diphtheria, who cannot receive proper care in their own homes

General Alexander Shaler, the President of the Board of Health, has been charged with bribery as a member of a commission to select and purchase for the city three sites for armories for militia regiments, and required to furnish bail to the amount of $10,000 On account of his honorable record as a soldier and a citizen, and the high esteem in which he has always been held in the community, it is to be hoped that the General will be able to fully clear himself of these grave accusations against him It is doubtful, however, whether the administration of the Health Department has been as efficient under his management as under that of his admirable predecessor, Prof Charles F Chandler At the same time, the expenses of the department have been considerably greater than when Dr Chandler was at its head Thus, a short time since Col Emmons Clark, the Secretary of the Board of Health, in explaining the routine management of the latter before the State Senate Investigating Committee, showed that soon after Gen Shaler became President he put his military ideas into practice by dividing the working corps of the Department into seven divisions, each under the direction of a chief at a salary of $3,000 a year, thus causing an increased annual expenditure of $21,000 for work which was formerly attended to by the Sanitary Superintendent, Dr Day, who is still the Executive officer of the Board, and to whom all the chiefs of divisions are responsible It was also shown that there was greatly increased expenditure for clinical service

Six children in Newark, N J, were bitten by a rabid dog while on their way to school on the 2d of December On the following day Dr O'Gorman, of that city, published a card advising the parents of the children to send them to Paris to be treated by Pasteur, and asking for a public subscription for the transportation of those whose parents cannot afford the expense At the same time, he cabled to the great French savant, inquiring if he would take charge of the cases if they were sent to Paris On December 4 Pasteur replied that he would do so, and accordingly four of them are to be sent, a sufficient amount of money having been subscribed to ensure the payment of their expenses A consultation of physicians has been held at the office of Dr Herold, President of the Newark Board of Health, in regard to the matter, and it is probable that Dr Frank S Billings, of New York, will accompany the children to France, and make a study of Pasteur's methods with a view to introducing his prophylactic treatment of hydrophobia into the United States The parents of two of the bitten children refused to allow them to go

The first human body was successfully incinerated at the new Mount Olivet Crematory at Fresh Pond, Long Island, December 4 It was that of an Austrian formerly living in this city, but who had of late resided in Hoboken, across the river He died about a month previously, and had especially requested that his remains should be cremated The whole crematory building is not as yet by any means completed, but the incinerating apparatus has been put in working order The structure is of brick and marble, and the architecture is a modification of a Greek temple About forty bodies are now awaiting cremation here Mr Erastus Winan has just purchased a farm on Staten Island, on which another crematory is soon to be erected

One of the dangers from large cemeteries has just been illustrated at the village of Nyack, on the Hudson For some time past there has been a growing feeling among the inhabitants that the water courses running towards the village might become polluted by the increasing number of bodies buried in the Oak Hill Cemetery, near its northwestern portion, and recently the State Board of Health has been asked to make a full investigation of the matter This has now been done, and the reports of Dr Alfred L Carroll, Secretary and Executive Officer of the Board, Horace Andrews, civil engineer, and William Halles Jr, who made the analyses of the water in the vicinity of the cemetery, which have just been made public, clearly point out the danger from this source, and at the same time make such suggestions as will lead to the obviation of the difficulty as far as possible In the course of his report Dr Carroll says "The dangers arising from decomposition of animal matter in burying grounds vary with the character of the soil, but under any circumstances the difference is rather one of degree than of kind In porous soils such decomposition takes place most rapidly, complete decay of the body sometimes occurring in a very few years, but these soils permit the greatest diffusion of gaseous and dissolved products In the case under consideration, with gravelly superficies underlaid by almost impervious strata, such wide diffusion of the rapidly produced liquefied results of putrefaction would be particularly favored It has long been a matter of common experience that low fevers and various forms of 'filth diseases' are apt to prevail in the neighborhood of old burying grounds where population gathers around them " P B P

BOOK REVIEWS

Face and Foot Deformities By Frederick Churchill, C M, Surgeon to the Victoria Hospital for Children With Illustrations of New Appliances for the cure of Birth-mark, Club foot, etc 8vo, pp xvi, 195 Philadelphia P Blakiston Son & Co, 1885 Chicago W T Keener

The reason for combining so diverse topics as are indicated in the title of this book will be found in the author's own words in the preface, as follows "It may be asked why I should associate the face with the foot, as these are the two extreme parts of the body? Chiefly because deformities of these members of the body, being more manifest than deformities elsewhere, they constitute a greater hindrance to success in life They not only deform, but deface, by reason of their great disfigurement, the artistic proportions of those parts of the body upon which the eye of the observer most loves to rest "

This short excerpt explains, so far as need be, the meaning of the alliterative title, "Face and Foot," and serves at the same time as a fair example of the writer's very defective and unpleasing literary style But while his sentences are far less skilfully framed than those which lend a charm to the writings of Jonathan Hutchinson and others of our best medical writers, he nevertheless has much of value to tell in this book about nævus and club foot, the two affections with which it is chiefly concerned It is to be noted that the comparatively new and highly successful practice of treating nævi by the needle cautery and perforated metallic plates, is here for the first time adequately set forth Very sensible directions are also given for the detail management of face eruptions, parasites, sebaceous cysts, dental abscesses, hare lip, salivary fistula, excess of hair, etc, as well as affections of the eye The latter half of the volume (pp 117 to 185), treats of injuries as well as deformities of the foot, of corns and chilblains, onychia, ulcers, and all the deformities to which ill-fitting boots give origin The congenital and paralytic deformities are also fully considered The large number of colored lithographs and wood-cuts which adorn the book add greatly to its value

THE USE OF THE MICROSCOPE IN CLINICAL AND PATHOLOGICAL EXAMINATIONS By CARL FRIEDLANDER, Privat-Docent in Pathological Anatomy at Berlin Translated by Henry C Coe, Pathologist Woman's Hospital, New York New York D Appleton & Co , 1885 8vo, 205 pages Jansen, McClurg & Co , Chicago

This is one of the best books of the kind Its descriptions are short, detailed and accurate It does not pretend to cover the field of pathology, but tells how to use the microscope and its various accessories, such as mounting materials and staining reagents, for clinical examination particularly

The chapters upon microscopic accessories and reagents are good, for they give details which are of importance to students, and especially beginners, and are often omitted from other text books At the same time descriptions of complicated accessories which are often described in such works are omitted here, and with advantage, for they are usually useless to those who devote themselves wholly to clinical and ordinary pathological work

A short chapter is devoted to the "Observation of Living Tissues," and one still shorter to an "Examination of the Solid Elements of the Body" "The Examination of Fluids" is treated of at length, and well At first the methods of preparing fluids for examination were given, then in succession and in detail the subjects of blood, sputa, pus, urine, secretions of the genital tract, contents of stomach and intestines, and exudations

It is devoted wholly to descriptions of the methods best adapted to use for making microscopical examinations for clinical purposes By those interested in this subject, and especially by the beginner, will this little book be found valuable The fact that a second edition of it was demanded in Germany in a comparatively short time, is evidence of its worth

THE PHYSICIAN'S VISITING LIST (Lindsay & Blakiston's) FOR 1886 Thirty-fifth year Newly Revised Philadelphia P Blakiston, Son & Co , 1885 Chicago W T Keener

This Visiting-List has stood the test of almost half a century, and its recent improvements should make it still more popular than it has been The dose tables have been rewritten in accordance with the Sixth revision of the U S Pharmacopœia, and contain both the metric and old nomenclature In addition to the Visiting list proper there are pages for memoranda, for addresses, for bills and accounts, memoranda of wants, obstetric engagements, vaccination engagements, obstetric cases, record of deaths, and general memoranda It is compact, convenient, simple and tasteful

INTERNATIONAL CONGRESS

THE COLUMBIA COUNTY MEDICAL SOCIETY ON THE CONGRESS QUESTION

At the regular meeting of the Columbia County Medical Society, State of Pennsylvania, the following resolutions were unanimously passed

WHEREAS, There being a division of sentiment in the medical profession relative to the action taken by the American Medical Association at its meeting in New Orleans, and also as regards the action of the Committee of Arrangements in carrying out its instructions relative to the proposed meeting of the International Medical Congress, to meet in Washington, D C , in 1887,

Resolved, That we reaffirm our allegiance to the Code of Ethics of the American Medical Association, and we hereby give expression to our unqualified endorsement of its action in adding to the Original Committee

Resolved, That this Society approves of the action of the Committee at its meeting in Chicago in deciding to appoint to official positions in said Congress only those who are responsible to the American Medical Association

Resolved, That a copy of this action be forwarded to the Secretary General of the Congress

W M REBER,
Secretary Columbus County Medical Society

MISCELLANEOUS

DR RAPUTEAU, so well known during the past twenty years by his original work in physiology and experimental therapeutics, is dead

HYGIENE AND BACTERIOLOGY —The German Government has ordered that chairs of hygiene and bacteriology be established in all the Universities of the Empire

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM DECEMBER 5 1885 TO DECEMBER 11 1885

First Lieut H P Birmingham, Asst Surgeon, ordered for duty at Camp Grant, Riverside Park, New York City

First Lieut Geo E Bushnell, Asst Surgeon, ordered for duty as post surgeon, Ft Preble, Me

Capt Wm J Wilson, Asst Surgeon, ordered for duty as post surgeon, Plattsburg Barracks, N Y

Capt D M Appel, Asst Surgeon, ordered for duty at Jackson Barracks, La (S O 256, Dept East, Dec 4, 1885)

First Lieut Edward Everts, Asst Surgeon, ordered from Dept Columbia to Dept Arizona (S O 279, A G O , Dec 5, 1885)

First Lieut R S Polhemus, Asst Surgeon, relieved from duty at Presidio of San Francisco, Cal , and ordered for duty as post surgeon at Ft Halleck, Nev , relieving Acting Asst Surgeon Loren N Clark, U S A S O 113, Dept Cal Nov 30, 1885)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING DECEMBER 2 1885

George C Lippincott, P A Surgeon, detached from Navy Yard, Washington, and wait orders

C W Deane, P A Surgeon, ordered to the U S R S "Dale" as relief of P A Surgeon G P Lumsden

G P Lumsden, P A Surgeon, ordered to Naval Hospital, Washington

P A Lovering, Passed Asst Surgeon, detached from U S R S "Wabash," and wait orders

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol V CHICAGO, DECEMBER 26, 1885 No 26

ORIGINAL ARTICLES

THE CLIMATIC TREATMENT OF DISEASE, WESTERN NORTH CAROLINA AS A HEALTH RESORT[1]

BY HENRY O MARCY, A M , M D ,
OF BOSTON

Modern science invests old topics with new interest The fundamental factors of sanitation are now so well understood that the question of climate and its influence upon health and disease may be discussed with the assurance of dealing somewhat, at least, with objective factors, instead of theory and the results of experience alone Every student of modern medicine finds a new inspiration from the great progress already made by the indefatigable labors of a considerable number of trained workers in all the leading countries The one object of research has been to ascertain the causes of communicable diseases

Few will now be found to question the real profit arising from this most difficult problem of scientific research, and that, at least, a clew has been obtained leading to a knowledge of one of the most profound of nature's mysterious workings There are many who accept it as the prophecy of a revelation to come, which shall elevate medicine from the domain of art and place it within the realm of the more exact sciences , a knowledge of fundamental factors upon which to erect anew the Temple of Æsculapius If a contagium vivum plays the rôle in the entire group of zymotic diseases, the study of organic decomposition is not alone a question of chemical interest, but irresistibly leads to conclusions of a biological character, and the scientist finds himself absorbed in watching life processes ,—a struggle for the survival of organisms with their environment, a conflict ending often in the destruction of the higher complex forms of animal life by a foe, so insignificant, so utterly beyond ordinary comprehension, that it seems verily a battle with the powers and principalities of the air

The so called "germ theory of disease" has passed from the realm of theory into that of demonstration as fact, and based upon our present knowledge confessedly fragmentary and imperfect, yet sufficiently exact from which to make deductions, sanitation has become in a large measure a science From this standpoint, climatology is invested with a new interest and value, as seen especially in the contributions of the last few years A surgically clean wound means an aseptic wound The aphorism of Hippocrates, "pure air, pure water, pure soil," signifies now an air, water and soil free from infectious elements of disease, and this must be defined as the most important factor pertaining to a health resort, sought under the name of climate This subject, which is far too large for the present occasion, must be epitomized in a general way as the individual wisely adapted to his surroundings

Life carries with it, as an inherent property, a vital, resisting power by which the individual is able to adapt himself to surroundings and overcome deleterious influences These phenomena we call the "laws of life," beyond the limits of which life itself ceases Thus heat, water, food, oxygen, etc , must be furnished within fixed limits Departures from the ideal standard which we call health lessen the vital, resisting power of organs, as well as of individuals, and pave the way for the introduction of pathological factors Nature has provided man with an armor efficient to withstand and repel the invisible foes with which he is ordinarily surrounded An unbroken skin is a coat of mail invulnerable to his surgical foes The steady police surveillance of the cilia of the epithelium which lines our respiratory passages is ever ready to seize and expel the intruder, be it bacillary, or any other form of atmospheric contamination When the defenders of the castle are disabled, then it especially behooves us to take into watchful consideration the strength and character of ourselves, as well as of our enemies

The chemical and mechanical laws of life have, hitherto, almost entirely engaged the attention of investigators in the study of the circumfusa of the invalid For a number of years committees from the American and British Medical Associations have been engaged in securing data for the comparison of the invasion of acute diseases with meteorological changes Although these latter are largely x factors in the problem, they have a much wider significance than usually supposed, since they make possible conditions not only devitalizing to the individual, but favoring in many instances the growth and development of infectious germs The tides and changes of the great atmospheric ocean, in which we are submerged, are of the utmost significance Its weight, as measured by the barometer, indicates the pressure which our bodies sustain The moisture in suspension not only increases the weight, but modifies its influence upon the individual, and this is measured by the hygrometer The changes of atmospheric temperature, as recorded by the thermometer, are of well recognized importance The atmosphere also varies in its composition, of which, from our present standpoint of consideration, oxygen and ozone may be accepted as the most significant, since these agents materially lessen the growth and development of all the microscopic forms of plant life From the observations of a number of our most competent physiologists, it is probable that the amount of oxygen absorbed in health does not greatly vary whether the individual is at the sea level, or at high altitudes If this is correct, the accepted belief of increased oxygenation of the blood from breathing an air rich in oxygen, as at the sea level, is not true

---

[1] Read before the American Academy of Medicine New York October 29 1885

The effect upon the individual of an ozonized atmosphere is generally conceded to be beneficial, yet, unfortunately, less is known upon this subject than is desired, its antiseptic properties are well recognized, and its influence upon the purity of the atmosphere, if not upon the individual, is undoubted Ozone owes its great influence to its powerful oxidizing qualities The compounds of ammonia, phosphorus and sulphur are acted upon with great rapidity, and the odors resulting from animal decomposition are removed almost instantly It is probably destructive to all the minute vegetable organisms, when in active development, but its effect in destroying the vitality of their spores has not yet been ascertained This has its direct bearing upon the question of climate, since it has been pretty well determined that all the varieties of pathogenic microbes not only do not thrive, but fail to live, except within a narrow range of conditions Pasteur has based his problem of protection from disease by the inoculation of attenuated virus of repeated cultures, upon the belief that these morbific bacteria have lost their specific effects in the presence of free oxygen—that is, these growths are anærobic The experiments of Ogston and Cheyne do not, however, confirm this supposition In a series of cultures of the vaccine coccus, conducted with great care, the cocci bred true and cultivated readily, but the vaccinations which I made from the cultures were entirely without effect A few degrees in temperature will often be sufficient to retard or destroy the development of the bacterial reproduction

Based upon the belief that an aseptic atmosphere is of the first importance in the selection of a climate for the benefit of sufferers from a certain class of diseases, examinations of the atmosphere have been carefully made to demonstrate its purity Miguel and Freudenreich found that microphytes were rare at 800 metres, and absolutely wanting at 2,000 metres above the sea level For physical reasons, high altitudes have been believed to be beneficial in early phthisis, and, influenced by the later demonstrations of a bacillary cause, this aseptic state of the atmosphere is theoretically accepted as promising good results, and sanitary stations for mountain air treatment of consumptives have been established at several selected points in the Alps, where the comforts of home life are furnished to invalids Of these health resorts, Davos and St Moritz are the most popular St Moritz is 6,000 feet and Davos is over 5,000 feet above the sea level, and the latter has become noted for winter treatment, although the average temperature from November to March is only 23° F The number of visitors at Davos last winter was over 1,000, and careful provision is made for home comfort The patients are urged to be active out of doors within the limit of fatigue Each year adds to the number of invalids resorting to these mountain sanitaria, and the statistics show good results It should, however, be borne in mind that the cases sent to these resorts are those selected in the incipient stages of disease, and this is to be taken into the account in the deductions that the recoveries average one fourth , also the time elapsing after the treatment has been too short to determine with accuracy the results This pertains in criticism to the statistics of other similar localities, but it is by no means an easy task to secure satisfactory data, and such a problem can never be subjected to a mathematical analysis

A recent medical visitor writes as follows ' I saw the well known "apostle" of Davos, Dr Spengler, and his son in-law, Dr Peters, whose cordial reception I will not fail to mention here They gave me much valuable information about Davos and its value as a health resort They seem to aim chiefly at strengthening the general system, and the heart in particular I do not think they make systematic use of the milk-cure or of the douche, but the methodical walks up hill form part of the curative system Consumptive patients are benefited by their stay here if the heart be in good functional order, and if they have still a certain amount of strength Erethic, or very weak patients, sometimes lose their sleep as soon as they are here, and, unless they regain it after the first few days of acclimatization, they do better to leave the place altogether Davos seems to be favorable also in the case of torpid, scrofulous patients who want a bracing and exciting atmosphere, for non-irritable anæmics, debilitated and convalescent subjects The fear of tuberculous infection in these large sanitaria may keep away a number of such patients until special hotels have been opened for non-tuberculous persons I spoke with our professional brethren on the occurrence of hæmoptysis, and was told that it was by no means more frequent here than in the plain In a pamphlet, 'Die Landschaft Davos,' I find the following instructive data given by Dr Spengler himself 'Out of 323 patients, 178 never had hæmoptysis, either at home or here (in Davos), 126 had hæmoptysis at home, and none here, sixteen had it both there and here, three first had it here' These figures speak very plainly for themselves "

In America we are indebted to the indefatigable labors of Dr Charles Denison, of Colorado, far more than to any other person, for his masterly study of the Rocky Mountain regions as health resorts

Granting that consumption is dependent upon the development of a bacillus within the lung, what may we legitimately expect from climate for its destruction or expulsion? Its propagation, so far as we now know, is dependent upon a proper soil, which means the furnishing of suitable nutriment in the form of albuminoids, a continuous temperature, and a proper amount of moisture. These supplied, the bacilli reproduce abundantly externally to the individual, and that they do not in any manner lose their pathogenic qualities is shown by their ready reproduction and development, following inoculation, causing the death of healthy animals.

Do climatic changes modify these factors? Much has been claimed for, and written upon the advantages of a dry climate in consumption. There are other reasons why this may give benefit, but I suppose no one will contend that the fluids in the tissues of the lungs are materially lessened thereby, or that, while life continues, these can by any manner of means be so diminished as to prevent bacillary development. The heat point for the bacillary growth must be maintained so long as the individual exists, for its reduction to a point to interfere with its development must be incompatible with the conditions possible for the maintenance of the life of the individual. Given, the depreciation of the vitality of the tissues locally, and that the albuminoids requisite to furnish food for the unwelcome tenants continue, and we safely infer, from what we now know, that an aseptic atmosphere, however, dry or rarefied, cannot alone furnish the factors of cure.

The rôle of bacterial reproduction varies greatly in certain diseases. Thus, in scarlet fever, measles, small-pox, once having run its course, the bacterial development is at an end, and only in the most exceptional conditions can be reproduced in the same individual. In a measure this is true of typhoid, typhus, and yellow fever, and also of diphtheria and perhaps other diseases. Remittent or malarial fever is an exception, and yet after a time the individual either takes on an increased resisting power to the disease, or the conditions necessary for its development are changed and so called acclimitization follows. However, the residents of a malarious country never entirely escape its influence. That it is a new infection, rather than the development of the original seed, appears probable, since ordinarily a residence in a country free from malaria soon causes the disease to disappear. While thus much may be determined from experience, and the sufferers from this disease promised exemption by change of climate, sufficient is not yet known of the rôle of the bacillus malariæ from which to deduce more than the most general conclusions. Enough is known of the bacillus tuberculosis to show that it is found in all countries, making its greatest inroads in thickly settled communities and is most prevalent in cold, damp localities. This latter state may be considered favorable since, thereby, catarrhal conditions of the respiratory passages are induced, and thus a soil favorable for its development is produced. For similar reasons the general vitality, or resisting power of the individual is reduced. That the person thus subject to catarrhal inflammations should be greatly benefited by breathing an aseptic air is easily conceived, since such an individual residing in a city can scarcely escape the breathing of an infectious atmosphere.

Every pathologist knows that a considerably greater percentage of cures in consumption is effected than is generally believed. It is not rare to find localized, cicatricial and calcareous degeneration in the apices of lungs, otherwise healthy, which may be traced to disease incurred even in early life. If caused by bacilli, why did these cases recover? The answer must be, that the conditions for the proper development of the microbe did not pertain, that in some way the vital, resisting power of the tissues was superior to the invasion of the disease, that cells were proliferated, as a protective wall, so to speak, against the invasion of the microbe, which did not furnish the albuminous food necessary for its development. Thus shut in, the disease is necessarily limited and bacterial growth ceases.

Sée, in his recent treatise on "the Bacillary Phthisis," discusses at considerable length, the question of microphytic life, especially that of the bacillus tuberculosis in high altitudes, and considers such a climate of prophylactic character. Recent very interesting experiments, conducted in the pure air of the Adirondack region, show that the development of the bacillus tuberculosis following inoculation and infection of animals does not in any wise differ from the laboratory experiments carried on in the large cities.

Dr. Harold Williams, of Boston, in a carefully prepared paper read before the Massachusetts Medical Society during the present year, reviews certain phases of the question of the adaptability of climate to individuals, and in summing up says: "It seems to me that we must admit, in the present state of our knowledge, the meteorological differences of climate have been proved to be of little importance in the treatment of phthisis, and, furthermore, that clinical evidence would support this conclusion, for the burden of proof lies with those advocates who plead in favor of special climates, and such proof it seems to me is yet to be forthcoming."

This is more than I am willing to admit, since we should look for aid to the infected individual from climatic change, not in the breathing of an "anti-bacillary atmosphere," but in the placing of the patient in surroundings suitable, if possible, to strengthen his weakened, vital, resisting powers, and reinforce his tissue development, so that it may be superior to the attack of the would-be destroyer, and although we do not know all the conditions requisite for counteracting the growth of morbiferous bacilli, we are assured that healthy tissues and blood imperfectly furnish the required pabulum. Were it only necessary to breath an anti bacillary atmosphere, science could solve the problem and give to the sick chamber an antiseptic air fatal to bacterial growth. Many have builded hopes upon such remedial agents and, perhaps, in certain measure correctly, but, given a "pneumatic cabinet" and antiseptic inhalations, we should not expect to affect a diseased gland, a caseous nodule, and only in a certain limited degree, a cavity even, since the air inspired goes almost wholly into the less diseased and healthy portions.

When our present knowledge of infectious diseases is thus reviewed, are we to ignore, as some recent writers have done, the entire question of benefit to be obtained from climatic change? On the contrary, it appears, therefrom, that we have sufficient data by which to add, emphasize and encourage climatic investigations and confirm previous experience, even if the theories, under which it was sought, do not prove true. Equability and dryness of the air are certainly important, well recognised factors in the alleviation of the respiratory tract, and this alone is sufficient to make these conditions of value, in the selection of a residence for such invalids. Atmospheric moisture, in cloud or vapor, is detrimental by lessening the sunlight, and the clear skies of any land are justly prized. This is sometimes called the diathermacy of the atmosphere, and this is increased by the rarefaction of the air. Nearly every one has observed the intensified effect of the sun's rays at high altitudes.

Clinical observations teach that on the invalid able to endure it, active out-of-doors exercise, in elevated localities, has an especial invigorating effect upon the respiratory function and apparatus, the circulation is improved, thereby increasing the oxydation of the tissues, as well as producing a better cellular nutrition and elimination of the effete material. The lowering of the atmospheric pressure also tends to diminish the circulation of the deeper tissues, which in certain conditions of the organs is of great importance—as for example, in renal, hepatic, or cerebral congestions—while, on the other hand, the blood flow to the surfaces is greatly augmented, an important factor in conditions of defective, or perverted cutaneous nutrition. The effect of this is shown in increased appetite and improved digestion, until the imperfectly prepared food, too often forced by necessity, to supply the demand, is taken with a relish never known at home, and digested without knowledge of organs or processes.

With a labor only known to those who have worked in such direction, Dr. Denison has utilized the mass of statistics gathered by the Signal Service Department, and placed before the profession his seasonal maps of the United States. These are worthy the careful study of every physician, and teach many facts of the greatest importance. Under date of June, 1885, he writes in regard to Colorado: "In my practice of twelve years in Colorado, it has been very seldom that I have known of the origination of phthisis here, and with the carefully kept records of nearly twelve hundred cases of asthma, phthisis, chronic pneumonia, etc., I do not remember to have written a certificate of death for one uncomplicated case of phthisis originating in Colorado. Of course there are such cases; I have one under my care at the present time. As civilization progresses here, it will not be strange if the disease becomes much more frequently met with in thickly settled districts, made up as they are of a considerable scattering of regenerated invalids." The weight of evidence is so decidedly in favor of elevation as an important factor in the climate for the consumptive, that it will not answer for any one who has not personally investigated the Rocky Mountain regions, or similar elevated resorts, to say that nothing has been proved for elevation. Everything has been proved, since all the most desirable attributes, dryness, coolness, sunshine, stimulation of increased atmospheric electricity, sandy soil, perfect drainage, and last, but not least, *purity of atmosphere*, are found and increased with elevation above the sea level."

Dr. H. Weber, in his excellent *résumé* of the subject of climatic treatment of phthisis given in the the Croonian lectures, published in the *British Medical Journal* during the present year, emphasizes the advantage gained by the invalid not only from elevation, but also by the cold, dry air, and makes the distinction that in the sunshine the coldness pertains rather to the atmosphere than to the individual. Speaking of his personal experience in the high Alps in November, at the elevation of 10,000 feet, without an overcoat, he says: "As long as I remained in the sunshine I never felt warmer in August or September in the same localities; but in the shade an overcoat would have been just a comfort, though I did not feel cold, in spite of a temperature of only 20° to 25° F., the air being perfectly calm. A black bulb thermometer *in vacuo*, showed in the sun between 88° and 92° F., while an ordinary thermometer registered only between 31° and 32° F." He sums up the advantages attained in mountain health resorts to be as follows: "1st. The atmospheric purity or aseptic nature, the comparative absence of floating matter. 2d. Dryness of the air and soil, comparative absence of mist. 3d. The coolness of the air temperature and the great warmth of the sun-temperature. 4th. The rarefaction and low pressure of the air. 5th. The intensity of the light. 6th. The stillness of the air in winter. 7th. A large amount of ozone. The effects on the invalid suited to such climates are, increase of appetite, improvement of sanguification and general nutrition, strengthening of the heart and circulation, raising of muscular and nervous energy and of activity of the skin."

Observations have been made in some of the South American high altitude stations, as at Janja, of more than 10,000 feet above the sea. The range of temperature during an entire year was between 50° and 60° F., with the sky always clear and sunny, and an atmosphere pure and bracing, which invites to out of doors exercise and enjoyment. In an atmosphere as cold as the winter in the Alps or the Rocky mountains, it is essential to select localities where protection from wind is attained, since the motion of an atmosphere thus cold abstracts heat rapidly. In broad stretches of equable cold, the winds are reduced to a minimum and the absence of moisture greatly increases the hours of sunshine.

The chief objection to the Rocky Mountain health resorts lies in the distance from the centres of population. The White Mountain region affords a very considerable elevation, but, judged in the light of the above experience, too little to secure much good from the rarefaction of the air, since Bethlehem is the higher location of the villages, and this is only 1,800 feet above the sea level.

The Adirondacks are of less elevation, but possess the advantage over the White Mountains in being sparsely inhabited, an almost unbroken forest, an elevated plateau furnishing an equable, cool summer and a decidedly cold winter climate. Through the influence of Dr. Loomis, of New York, a sanitarium has been established for patients to remain the entire year, and good results have been attained, but it is difficult of access, and offers very little advantage from rarefaction of the atmosphere.

The mountains of the Alleghany range have been known to some extent as affording interesting and health giving resorts for summer recreation, and in the southern ranges furnishing summer homes for the residents of Southern States. The entire range is free of malaria, and Ashville, in Western North Carolina, has grown to a village of about five thousand inhabitants, chiefly as a summer resort. The Alleghanies divide, in the northern part of North Carolina, into the Blue Ridge and the Smokies, the latter the boundary line between that State and Tennessee. The triangle thus formed, with South Carolina and Georgia on the south, is filled with cross ranges of mountains and comprises a territory of about fifty thousand square miles. The entire section is elevated in the bed of the streams, or valleys, to about two thousand feet above the sea, and presents a most irregular surface, a sea of mountain peaks, ranging from three thousand to six thousand feet in height. Within an area of fifty miles there are twenty peaks over six thousand feet high, nine tenths of the entire district is an unbroken, primeval forest of the largest growth, chiefly of deciduous trees. It is the oldest geological formation on the continent, of granitic character, and gives the most unmistakable evidence of the corroding tooth of time. Not a lake or a swamp is to be found in the entire region, a fact perhaps without a parallel for an area of equal extent in the world. Feldspar is the predominating factor in the granite, and, owing to its easy decomposition, the rocks have worn more rapidly, giving an excellent soil for tree growth and the purest of water, as seen in an endless series of pearly, musical rivulets.

With a sparse population, such soil and water, there cannot be otherwise than a pure atmosphere. Owing to the difficulties of making railroads in such a mountainous country, until quite recently, the larger portion of this region has been more inaccessible than Colorado, and no part of the United States, east of the Mississippi, equally large, is probably to-day so little known, or possessed of equal natural advantages, so entirely undeveloped.

The possible advantages of a winter residence in this section has, until recently, been untried. Within the last two or three years I have sent a considerable number of invalids to Ashville and other localities, for the most part with excellent results. Owing to my own favorable impressions, I personally surveyed this triangle during the past summer, making several hundred miles on horseback and in carriage. I am indebted to a large number of resident physicians, whose uniform courtesy I am glad to acknowledge, for many of the facts upon which my deductions are based.

Ashville was the central point of observation. Its popularity is likely to prove its ruin as a health resort, too large for a country village, with its purity of surroundings, too small to secure the advantages from sewerage and an uncontaminated water-supply. Its large hotels are badly located in the centre of the business portion of the town, and its beauty of situation is its chief recommendation. Twenty-three hundred feet above the sea, it is splendidly situated on rising ground, with a distant amphitheatre of mountains. As a winter resort it possesses the advantages derived from its southern location, giving a mild climate, not unlike the South of France. From observations now made for a number of years, the mean average of temperature at Ashville is Spring, 52.3°, summer, 71.3°, autumn, 55.3°, winter, 37.2°, year, 55.3°.

Average rain-fall, 40.02 inches, during a period of eight years the thermometer but twice rose above 88°, and only three times fell below 3°. Ashville has offered, hitherto, the essential advantage of being of greater altitude than any other Southern health resort of easy reach by rail, with a dry, pure, and invigorating air, in winter a remarkable freedom from rain and cloud, with warm sunshine, in summer never oppressive heat, and cool nights. Rain makes of the clayey loam a tenaceous mud, which often seriously interferes with out-of doors exercise.

Dr. H. P. Gatchel, of Ashville, who has for years made a careful study of the climate, writes. "The climate of Ashville is no Eden climate. It partakes more or less of the variableness that pertains to the most of our territory. It has some severe winter days and some blustering March weather, but it is on the whole the best climate we have. If it lacks the uniform mildness of a portion of California, it does not, on the other hand, beget that excessive sensitiveness which is engendered in California. It develops a more robust constitution. It seems to afford a favorable medium between the enervating influence of the warm or uniformly mild regions and the overpowering cold of high Northern latitudes. The snow seldom remains many days at a time, even on the high mountains, and its stay in the valleys can generally be measured by hours. The climate of Western North Carolina would be still more desirable if the rain of winter were less than it is. But though this is considerable as compared with the dry interior beyond the ninety-fifth meridian, yet compared with Cincinnati, Louisville, Nashville, and Knoxville, it is moderate. Indeed, the universal testimony of all competent observers establishes the existence of a dry, invigorating atmosphere, the neighboring mountains serving to intercept much of the moisture, and to cause its deposition on the summits and outer slopes. The average rainfall in inches of the different seasons for a period of eleven years is shown to be as follows.

Spring	10.1 inches.
Summer	13.5 "
Autumn	7.1 "
Winter	9.5 "
Total	40.2 inches."

Below, on the French Broad River, are the Warm Springs, noted even by the Indians for their curative powers. Westward, at an elevation of twenty seven hundred feet, is Waynesville, an enterprising town, but here the valley is rather narrow, especially up the Richland Creek, where are located the White Sulphur Springs, justly popular as a summer resort, since the scenery is surpassingly lovely Beyond here the broken ranges extend westward for a hundred miles in picturesque beauty of forest and mountain, but without a single hotel where an invalid can be even comfortable

If tuberculosis is dependent upon the development of a bacillus, then the orthodox belief in the heredity of consumption is subject to revision and modification In evidence upon this question, I quote from a recent letter written by Dr Oliver Hicks, of Rutherfordton, N C

"I have made observations in regard to pulmonary diseases generally, and hereditary tubercular phthisis especially, to which I wish to call your attention, and which I know will influence you in selecting a place of refuge for your phthisical patients My observations and the opinions I have formed are based upon a large practice for twenty years I can show you sons and daughters of ancestors who came to this country and died from tubercular phthisis Many of them are far past the meridian of life, and are in good health, with fair prospects of attaining to ripe old age The grandchildren of these ancestors are in all respects healthy, and are entirely without indication of tubercular or strumous cachexia"

The Tuckaseege and Little Tenneesee rivers water beautiful, wide, elevated valleys, with out-stretching expanse of surrounding forest Their headwaters are in the mountains, which form the dividing chains between South Carolina and Georgia A considerable village, called the Highlands, has been advertised extensively as a health resort It is situated on a broad plateau, covered with oak growth, at an elevation of about four thousand feet, but it is of very difficult access for invalids, being fifty miles from the Western North Carolina railroad and about thirty from rail in South Carolina The roads are never good, and at times well-nigh impassable The rainfall here is excessive, being over seventy inches yearly average for the two years during which observations have been made The changes of temperature are sudden, and during much of the summer, clouds and rain prevail The cooler elevations cause condensation of rain from the moisture ladened winds blowing from over the heated lower lands stretching away to the East and South

Westward is the Nantahala Valley, which is less a valley than a plateau, between the ranges about three thousand feet in elevation Twenty miles by fifty long, it lies in picturesque loveliness, an almost unbroken forest Beneath the great arches of wide stretching birches, maples, and oaks, runs the beautiful river, giving name to the valley, making rippling, laughing music in its merriest mood, flecked with sunshine and shadow, between its banks festooned with thick hedge of kalmia and rhododendron, the wildest, most secluded spot east of the Rocky Mountains The rail will soon reach this valley, and the time will come when the attractions of this locality will draw thousands to enjoy and profit by a sojourn amid these mountains

Farther to the north are the splendid ranges, culminating in the Black, the Roan, the Yellow and Grandfather mountains The growths upon the upper heights are decidedly Alpine in character and afford a greater variety in plant life than any other localities in the United States On top of the Roan, General John B Wilder has erected a hotel, with accommodations for from four to five hundred guests Next year the visitor is promised the ascent by a steam-cable-road in connection with the railroad from Johnston City in East Tennessee The Roan is 6390 feet above the sea and is the highest inhabited spot east of the Rocky Mountains The temperature has been found to be exceedingly equable and the electrical condition of the atmosphere is claimed to offer certain advantages This large hotel has been erected in the belief of great benefit to be derived from a considerable long residence here, based upon the experience of several years during which period a small hotel became very popular

An interesting condensed weekly record is the following from the report of James E Burnett, U S Survey Officer, for the three months ending Oct 15, 1885, station top of Roan Mountain, N C Observations were taken at 6 A M, noon, and 6 P M daily It is to be regretted that the amount of rain fall and clear weather was not recorded

TIME	Bar	Ther D B	W B
1st week — Highest	24 363	68	65
Lowest	24 225	56	42
Average	24 285	61 2	56 8
2d week — Highest	24 303	67	65 5
Lowest	24 176	57	56
Average	24 253	62 7	61 4
3d week — Highest	24 203	66	62
Lowest	23 964	48	47 5
Average	24 110	59 5	57 3
4th week — Highest	24 292	65 5	64 5
Lowest	24 173	51 5	50 5
Average	24 228	59 6	58 1
5th week — Highest	24 254	66 5	65
Lowest	24 036	50	49
Average	24 138	58 3	56 9
6th week — Highest	24 291	75	65
Lowest	24 136	53	51 5
Average	24 202	59 5	56 8
7th week — Highest	24 266	70	65
Lowest	24 024	41	39
Average	24 137	56 8	58 4
8th week — Highest	24 236		61,5
Lowest	24 070		44
Average	24 134		52 4
9th week — Highest	24 200	64	61
Lowest	24 016	51	50
Average	24 131	50 6	55 2
10th week—Highest	24 274	61	6[illegible]
Lowest	24 0[illegible]6	44	42
Average	24 163	56 7	51
11th week—Highest	25 324	64	6[illegible]
Lowest	23 984	48	44
Average	24 191	49 5	51 8
12th week—Highest	24 272	59	58
Lowest	23 816	35	35
Average	24 069	47	45

Prof Muttrich, of Berlin, has reached the following conclusion from his forest meteorological researches "That the forest exercises a positive influence on the temperature of the air, that the daily variations of temperature are lessened by the forest, and in summer more than in winter, that the influence of the leafy forest in summer is greater than that of the pine forest, while in winter the tempering influence of the pine forest preponderates over that of the defoliated forest"

So far as I have been able to learn, no studies of a general sanitary character have been made upon this elevated region of the southern Alleghanies

The first writer on the climate of this region was John Rawson, Surveyor General of North Carolina

His history was printed in 1714 and reprinted in 1860 at Raleigh, N C He states "The climate is very healthful, our summer is not so hot as in other places to the eastward in the same latitude Our sky is generally serene and clear, and the air very thin in comparison with many parts of Europe, where consumption and catarrh reign among the inhabitants The winter has several fits of sharp weather, especially when the wind is northwest, which always clears the sky, though never so thick before However, such weather is very agreeable to European bodies, and makes them healthy "

The first scientist who probably visited this region was William Bartram, the botanist, who explored these ranges in the service of the distinguished Dr Fothergill, of London, in 1772, and published the ever interesting report of his travels, in a now rare book, in London in 1778 He never tires of repeating his delight in the beauties of the landscape, the diversity and magnificence of the vegetation, and declares that the Indians, both male and female, are among the finest specimens of physical development he has ever seen of any nationality

F A Michaux, M D also an enthusiastic botanist, gives an interesting account of his travels and collections, which was translated and published in London in 1805 He says "These mountains are getting inhabited very rapidly The salubrity of the air, the goodness of the water, etc , are the causes which attract new settlers hither "

Prof Asa Gray, of Cambridge, reports at considerable length an extensive botanizing tour made in 1841 in the mountains of North Carolina He reviews the labors of the previous explorers, and adds much interesting information of a general, as well as of a special character This is found in the *American Journal of Science* for April, 1842 The late Prof C W Kerr, State Geologist of North Carolina for many years, wrote "By reference to the Sanitary Department of the Census Report of 1870, it will be seen that one of the two or three most healthy localities in the United States is found in the western part of North Carolina, in the Blue Ridge region Indeed, it would be difficult to find a more salubrious climate in the world than the whole mountain section " Of the recent writers, no one has contributed so much of general information and value as Ziegler and Grosscup, in their work entitled "In the Heart of the Alleghanies "

In the Smithsonian Reports for 1856, the late Silas McDowell first called attention to and discussed the thermal or "no frost" zone There are certain considerable localities where frost is unknown, and the seasons, in their vegetation, are quite unlike the adjacent slopes Often in the early spring it is manifest as a green band across the side of a mountain before elsewhere apparent The explanation is the peculiar conformation of the slopes, which modifies the atmospheric currents Sections of this zone are found upon almost every spur of the Blue Ridge south of the Catawba River The season is as long as in South Carolina, while the summer heat is not higher than that of New York No reports from invalids residing in these localities have come to notice, as far as known, but the absence of frost at these elevations adds a very important factor to the rarefaction of the atmosphere, now sought as essential in certain conditions of pulmonary disease of the entire region

The water is pure and abundant, springs bubble up from every mountain-side and clear, crystalline streams run musically through every valley Medicinal waters, sulphur and iron springs, are not rare One great benefit to invalids of all classes lies in the purity of the air, which the extraordinary forest growth does much to render equable in temperature and moisture Dust is unknown The electrical phenomenon of the summer storms is exceptional, a highly ozonized atmosphere results therefrom Notwithstanding the utter disregard of laws of health by the inhabitants, they are a long-lived race of people One intelligent man, past 80, but looking scarcely 60, who delighted in statistics, gave me these, which he had gathered in Macon County With a population of about ten thousand, 136 individuals still living aggregated in age 10,667 years Of the number 26 men, 2,215 years, average 85+ years, 21 women, 1,823 years, average 86+ years, one woman living now in her 107th year

The absence of mosquitoes, gnats and black flies will speak volumes in favor of these mountain forests to those who have sought recreation in the wilds of our border lands in any direction The lack of civilizing comforts is the present drawback, and the invalid who ventures a residence in these remote mountain recesses must provide for himself nearly everything approaching a luxury The lover of nature of either sex will find plenty to occupy and fill the hours with delightful study It is, however, no place for one seriously ill, and the chronic grumbler will never want for occasion to exercise his spleen The absence of good roads and bridges makes locomotion difficult The saddle offers the best of exercise and the surest means of travel, but the railroads approaching from every direction give promise of a new era The mineral wealth, forest growth and productive soil are in evidence of material prosperity to come The pure air, water and climate hold out a hopeful helpfulness to invalids from every land The wise legislator, seeking far reaching results, would do well to consider the advisability of securing, under State control, a large reservation of the higher ranges as a park Its cost, at present, would be merely nominal Like the peaks and glaciers of Switzerland, its indirect returns of monetary gain would be more sure than bonded interest, and its sanitary advantages would be of a value incalculable to millions yet unborn

116 Boylston St , Boston, December, 1885

MEDICAL PROGRESS

OBSTETRICS AND GYNECOLOGY

Leopold's Two Additional Cæsarean Sections, Uterine Suture without Resection of the Muscular Tissue —Altogether, Leopold has performed the Cæsarean five times after the modern method, for which we are indebted to Singer In his first three cases he followed Singer's method exactly (stripping off the serosa, resection of a strip of the muscular tissue on both sides, suture, and dropping of the uterus) In the two cases reported in this paper, he did not resect the muscular tissue, for the reason that he has concluded it is an unnecessary detail Of his five cases, only one died, number four, and she of sepsis, which had set in before the operation Five living children were obtained The conclusions he has reached from these operations are given in this paper as follows 1 The patient to be operated upon is to be examined *per vaginam* as little as possible The external and internal organs of generation are to be carefully disinfected with sublimate (1–2000)or carbolic (three per cent) 2 Operate early—at the end of the first stage of labor 3 Have trusted assistants, thoroughly familiar with the steps of the operation 4 The uterine incision should extend downwards only to the reflection of the peritoneum, and is to be enlarged towards the fundus 5 After removal of the child, and before touching the placenta, draw the uterus out of the abdominal incision, and 6 Control hæmorrhage by compression of the cervix by elastic ligature or bands 7 Resort to stripping of the serous and resection of the muscular coats only when the serous borders do not readily glide over the muscular borders 8 The uterine incision is to be first sutured with silver wire, not including the decidua The inner borders of the muscular walls will come together better if, before drawing on the sutures, the uterus be compressed from side to side When the sutures are drawn together, the borders of the wound readily approximate Do not twist the sutures too tightly The superficial sutures are best of fine silk These superficial sutures should pierce the serous borders twice at the middle of the incision, once toward the end 9 The uterus sutured, the elastic ligature is to be removed, and the abdominal incision treated as after an ordinary laparotomy

The lesson taught Leopold by his fatal case was Where the patient is feverish, the membranes a long while ruptured, a foul discharge from the genitals, then there is probably inflammation extending to the serous covering of the uterus, and disinfection by the vagina or in the abdominal cavity will be, likely enough, of no avail to stop sepsis In such a case, the operation, as outlined above, had better not be undertaken, but, in the present state of our knowledge, the Porro method resorted to —*Archiv fur Gynak*, xxvi, 3—*Amer Journal of Obstetrics*, November, 1885

Strychnine in Post partum Hæmorrhage —Mr Joseph Thompson, in a note on this subject, says Dr Walker calls attention to the influence exerted by strychnine over *post-partum* hæmorrhage, and I can corroborate his observation My father first informed me of its use, and I have been in the habit of giving this remedy (during the last eighteen or twenty years) in all cases where flooding has been expected or has occurred in previous labors, with most satisfactory results I have no notes of cases, but have in my memory several instances where there was a previous history of flooding after labor, but where, when strychnine had been given beforehand, no hæmorrhage came on Strychnine has, no doubt, a marked influence in preventing *post partum* hæmorrhage I usually give five minim doses of the liquor stychniæ in tincture of orange peel three times daily for a month or six weeks before the expected time, and I cannot recall any case of flooding where it had been given in this way —*British Medical Journal*, Dec 5 1885

MEDICINE

Relation of Asthma to Diseases of the Skin —Dr J Duncan Bulkley read a paper on this subject at the recent meeting of the British Medical Association, in which he draws the following conclusions

1 Asthma has been observed in patients with certain diseases of the skin in such a manner as to indicate some occasional relationship between the two

2 Asthma does not occur, probably, in more than 1 per cent of patients with diseases of the skin and those mainly of the class known as exudative or inflammatory disorders

3 This occurrence of asthma in skin patients cannot be looked upon as a coincidence nor is the skin disease to be regarded as a cause of the asthma, but both the skin and bronchial difficulty depend upon the same internal cause, which may be nervous in origin, or may result from some altered condition of the blood

4 While the theory of the dependence of asthma on a state of spasm of the muscular element of the bronchial tubes has very strong evidence in its favor, it is still possible that the paroxysm of asthma may be occasioned by sudden and evanescent swelling of the mucous membrane of the bronchioles, partaking more or less of the characters of the wheals of urticaria, occurring both on the mucous membrane of the mouth and on the skin —*British Medical Journal*, Nov 2, 1885

Sugar in the Blood in Carcinoma —Gabriel Matrai (*Pester Med Chir Pr*, 36, 1885), after an examination of the blood of eleven carcinomatous patients and eleven other persons, states that Freund's theory is incorrect Sugar is found only after the cancerous cachexia has developed, and is due to the cachexia, not to the carcinoma —*St Petersb med Wochenschr*, No 45, 1885

SURGERY

Ligation of the Common Iliac (Artery and Vein) for Pelvic Enchondroma —Professor E von Bergmann *reports the case of a girl, 11 years* old, who had a pediculated enchondroma of the pelvis, arising from the left sacro-iliac articulation, for which he ligated the common iliac artery and vein The operation, which was extra-peritoneal, was completely successful —*Deutsche med Wochenschr*, 42 and 43, 1885 —*St Petersburger med Wochenschr*, No 45, 1885

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

The Editor of this Journal would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer s full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

Subscription Price Including Postage

Per Annum in Advance $5 00
Single Copies 10 cents

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in registered letters

Address
Journal of the American Medical Association,
No 65 Randolph Street
Chicago Illinois

SATURDAY, DECEMBER 26, 1885

THE DIAGNOSTIC SIGNIFICANCE OF ANGINA PECTORIS WHEN ASSOCIATED WITH SUDDEN DEATH

Within the last few months the country has been startled by the sudden death of at least six public men Emery A Storrs, the well known lawyer and wit of Chicago, Josh Billings, General McClellan, Mr Hendricks, H B Claflin and Mr Vanderbilt So far as we have been able to learn, an autopsy was not held in the case of any of them Hence the cause of death is not exactly known, although this can be inferred either from the previous history or the mode of death

In the case of Mr Vanderbilt the *exitus lethalis* was extremely sudden and, so far as reported, was not heralded by any prodromata He was stricken down in the midst of apparently vigorous health, while engaged in earnest conversation with a railroad rival In all probability he was under the influence of strong emotion Death was attributed to apoplexy, but, notwithstanding the folly of attempting a diagnosis at this distance and with such meagre facts at command, we are yet led by two considerations to doubt the correctness of that decision These are, the great infrequency of almost instantaneous death from apoplexy, on the one hand, and on the other, the frequency, in men past 60, of rupture, or of sudden arrest of the heart in diastole, in consequence of strong emotion Presumptive evidence, therefore, would indicate that Vanderbilt died of sudden cardiac failure Similarly, the abrupt termination of H B Claflin's life, immediately after the perpetration of a jest, seems to point to a systole of the heart as the cause of death In these two instances there was not, so far as we know, any evidence of preexisting heart disease In the cases, on the contrary, of the first four distinguished men named above, there was a distinct history of angina pectoris or of symptoms allied to it

Although the newspaper accounts of Mr Storrs's last moments did not mention his having suffered pain in the chest, they yet spoke of a distress in the breast for which the attending physician had prescribed, and of which he complained during the night It is not improbable, in view of his subsequent sudden death, that this was either an anginose attack, or that form which Heberden characterized as "*angina sine dolore*" According to the accounts of Josh Billings's last moments, he was sitting in the door of his hotel, chatting cheerfully, when he suddenly complained of agonizing pain in the region of his heart A physician was hastily summoned, but before he arrived the well known humorist had expired General McClellan and Mr Hendricks were both reported to have endured an attack of neuralgia of the heart for hours, and to have expressed thankfulness for the cessation of the agony, although its subsidence, as the next few moments showed, but betokened the inability of the wearied heart to struggle on any longer

In view of these facts is it justifiable to attach diagnostic importance to the occurrence of angina pectoris immediately prior to death? In order to answer this query, the cause of this "suffocative breast pang," must be ascertained if possible Heberden, who, it is well known, gave the name angina pectoris to this pain in the chest, considered it due to a spasm of the heart Contemporaneous and subsequent English authors adopted his view The post-mortem discovery, however, that the hearts of those having died in an attack of angina were in a state of diastole, instead of spastic contraction, proved the incorrectness of Heberden's conclusions Parry was the first to recognize degenerative changes in the coronary arteries of those hearts which had manifested angina, and although his observations were abundantly confirmed, there arose early in this century a strong opposition to the dependence of this symptom upon organic diseases of the heart In consequence of his celebrated case, in which a tumor of the cardiac plexus was discovered *post mortem*, Romberg was led to consider this breast pain as a hyperæsthesia of the cardiac plexus Lancereaux supported this view by two cases in which he found degeneration of the cardiac nerves, together, it should be said, with atheroma of the coronary arteries For a time, therefore, the theory prevailed, at least on the Continent of Europe, that the pain of angina pectoris was of nervous origin and might be quite independent of organic method, for which we are indebted to Sanger. In his first three cases he followed Sanger's method exactly (stripping off the serosa, resection of a strip of the muscular tissue on both sides, suture, and dropping of the uterus). In the two cases reported in this paper, he did not resect the muscular tissue, for the reason that he has concluded it is an unnecessary detail. Of his five cases, only one died, number four, and she of sepsis, which had set in before the operation. Five living children were obtained. The conclusions he has reached from these operations are given in this paper as follows: 1. The patient to be operated upon is to be examined *per vaginam* as little as possible. The external and internal organs of generation are to be carefully disinfected with sublimate (1–2000) or carbolic (three per cent.). 2. Operate early—at the end of the first stage of labor. 3. Have trusted assistants, thoroughly familiar with the steps of the operation. 4. The uterine incision should extend downwards only to the reflection of the peritoneum, and is to be enlarged towards the fundus. 5. After removal of the child, and before touching the placenta, draw the uterus out of the abdominal incision, and 6. Control hæmorrhage by compression of the cervix by elastic ligature or bands. 7. Resort to stripping of the serous and resection of the muscular coats only when the serous borders do not readily glide over the muscular borders. 8. The uterine incision is to be first sutured with silver wire, not including the decidua. The inner borders of the muscular walls will come together better if, before drawing on the sutures, the uterus be compressed from side to side. When the sutures are drawn together, the borders of the wound readily approximate. Do not twist the sutures too tightly. The superficial sutures are best of fine silk. These superficial sutures should pierce the serous borders twice at the middle of the incision, once toward the end. 9. The uterus sutured, the elastic ligature is to be removed, and the abdominal incision treated as after an ordinary laparotomy.

The lesson taught Leopold by his fatal case was: Where the patient is feverish, the membranes a long while ruptured, a foul discharge from the genitals, then there is probably inflammation extending to the serous covering of the uterus, and disinfection by the vagina or in the abdominal cavity will be, likely enough, of no avail to stop sepsis. In such a case, the operation, as outlined above, had better not be undertaken, but, in the present state of our knowledge, the Porro method resorted to.—*Archiv für Gynak.*, xxvi, 3.—*Amer. Journal of Obstetrics*, November, 1885.

Strychnine in Post partum Hæmorrhage.—Mr. Joseph Thompson, in a note on this subject, says: Dr. Walker calls attention to the influence exerted by strychnine over *post-partum* hæmorrhage, and I can corroborate his observation. My father first informed me of its use, and I have been in the habit of giving this remedy (during the last eighteen or twenty years) in all cases where flooding has been expected or has occurred in previous labors, with most satisfactory results. I have no notes of cases, but have in my memory several instances where there was a previous history of flooding after labor, but where, when strychnine had been given beforehand, no hæmorrhage came on. Strychnine has, no doubt, a marked influence in preventing *post partum* hæmorrhage. I usually give five-minim doses of the liquor stychniæ in tincture of orange peel three times daily for a month or six weeks before the expected time, and I cannot recall any case of flooding where it had been given in this way.—*British Medical Journal*, Dec. 5, 1885.

MEDICINE

Relation of Asthma to Diseases of the Skin.—Dr. L. Duncan Bulkley read a paper on this subject at the recent meeting of the British Medical Association, in which he draws the following conclusions:

1. Asthma has been observed in patients with certain diseases of the skin, in such a manner as to indicate some occasional relationship between the two.

2. Asthma does not occur, probably, in more than 1 per cent. of patients with diseases of the skin, and those mainly of the class known as exudative or inflammatory disorders.

3. This occurrence of asthma in skin patients cannot be looked upon as a coincidence, nor is the skin-disease to be regarded as a cause of the asthma, but both the skin and bronchial difficulty depend upon the same internal cause, which may be nervous in origin, or may result from some altered condition of the blood.

4. While the theory of the dependence of asthma on a state of spasm of the muscular element of the bronchial tubes has very strong evidence in its favor, it is still possible that the paroxysm of asthma may be occasioned by sudden and evanescent swelling of the mucous membrane of the bronchioles, partaking more or less of the characters of the wheals of urticaria, occurring both on the mucous membrane of the mouth and on the skin.—*British Medical Journal*, Nov. 2, 1885.

Sugar in the Blood in Carcinoma.—Gabriel Matrai (*Pester Med. Chir. Pr.*, 36, 1885), after an examination of the blood of eleven carcinomatous patients and eleven other persons, states that Freund's theory is incorrect. Sugar is found only after the cancerous cachexia has developed, and is due to the cachexia, not to the carcinoma.—*St. Petersb. med. Wochenschr.*, No. 45, 1885.

SURGERY

Ligation of the Common Iliac (Artery and Vein) for Pelvic Enchondroma.—Professor E. von Bergmann reports the case of a girl, 11 years old, who had a pediculated enchondroma of the pelvis, arising from the left sacro-iliac articulation, for which he ligated the common iliac artery and vein. The operation, which was extra-peritoneal, was completely successful.—*Deutsche med. Wochenschr.*, 42 and 43, 1885.—*St. Petersburger med. Wochenschr.*, No. 45, 1885.

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE, INCLUDING POSTAGE.
PER ANNUM, IN ADVANCE $5 00
SINGLE COPIES 10 CENTS.

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address,
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 65 RANDOLPH STREET,
CHICAGO, ILLINOIS.

SATURDAY, DECEMBER 26, 1885.

THE DIAGNOSTIC SIGNIFICANCE OF ANGINA PECTORIS WHEN ASSOCIATED WITH SUDDEN DEATH.

Within the last few months the country has been startled by the sudden death of at least six public men: Emery A. Storrs, the well known lawyer and wit of Chicago, Josh Billings, General McClellan, Mr. Hendricks, H. B. Claflin and Mr. Vanderbilt. So far as we have been able to learn, an autopsy was not held in the case of any of them. Hence the cause of death is not exactly known, although this can be inferred either from the previous history or the mode of death.

In the case of Mr. Vanderbilt the *exitus lethalis* was extremely sudden and, so far as reported, was not heralded by any prodromata. He was stricken down in the midst of apparently vigorous health, while engaged in earnest conversation with a railroad rival. In all probability he was under the influence of strong emotion. Death was attributed to apoplexy, but, notwithstanding the folly of attempting a diagnosis at this distance and with such meagre facts at command, we are yet led by two considerations to doubt the correctness of that decision. These are, the great infrequency of almost instantaneous death from apoplexy, on the one hand, and on the other, the frequency, in men past 60, of rupture, or of sudden arrest of the heart in diastole, in consequence of strong emotion. Presumptive evidence, therefore, would indicate that Vanderbilt died of sudden cardiac failure. Similarly, the abrupt termination of H. B. Claflin's life, immediately after the perpetration of a jest, seems to point to a systole of the heart as the cause of death. In these two instances there was not, so far as we know, any evidence of preexisting heart disease. In the cases, on the contrary, of the first four distinguished men named above, there was a distinct history of angina pectoris or of symptoms allied to it.

Although the newspaper accounts of Mr. Storrs's last moments did not mention his having suffered pain in the chest, they yet spoke of a distress in the breast for which the attending physician had prescribed, and of which he complained during the night. It is not improbable, in view of his subsequent sudden death, that this was either an anginose attack, or that form which Heberden characterized as "*angina sine dolore*." According to the accounts of Josh Billings's last moments, he was sitting in the door of his hotel, chatting cheerfully, when he suddenly complained of agonizing pain in the region of his heart. A physician was hastily summoned, but before he arrived the well known humorist had expired. General McClellan and Mr. Hendricks were both reported to have endured an attack of neuralgia of the heart for hours, and to have expressed thankfulness for the cessation of the agony, although its subsidence, as the next few moments showed, but betokened the inability of the wearied heart to struggle on any longer.

In view of these facts is it justifiable to attach diagnostic importance to the occurrence of angina pectoris immediately prior to death? In order to answer this query, the cause of this "suffocative breast pang," must be ascertained if possible. Heberden, who, it is well known, gave the name angina pectoris to this pain in the chest, considered it due to a spasm of the heart. Contemporaneous and subsequent English authors adopted his view. The post-mortem discovery, however, that the hearts of those having died in an attack of angina were in a state of diastole, instead of spastic contraction, proved the incorrectness of Heberden's conclusions. Parry was the first to recognize degenerative changes in the coronary arteries of those hearts which had manifested angina, and although his observations were abundantly confirmed, there arose early in this century a strong opposition to the dependence of this symptom upon organic diseases of the heart. In consequence of his celebrated case, in which a tumor of the cardiac plexus was discovered *post mortem*, Romberg was led to consider this breast-pain as a hyperæsthesia of the cardiac plexus. Lancereaux supported this view by two cases in which he found degeneration of the cardiac nerves, together, it should be said, with atheroma of the coronary arteries. For a time, therefore, the theory prevailed, at least on the Continent of Europe, that the pain of angina pectoris was of nervous origin and might be quite independent of organic changes in the heart walls Indeed, no less an authority than Eulenburg, in his article upon this subject in the fourteenth volume of Ziemssen's "Cyclopædia of Medicine," advocates this view, and, like Landois, would divide angina into several different categories

Nevertheless, there has gradually been manifested a tendency to return to the view that true angina pectoris is dependent upon degenerative changes in the cardiac muscle These again are the result of defective nutrition either in consequence of atheroma of the coronary vessels or of valvular lesions These changes in the muscle may be either acute, with acute circumscribed softening, or chronic, as chronic fibroid degeneration with thinning of the wall affected Leyden, of Berlin, has recently advocated this view, and English writers, Balfour, Bramwell, Fothergill and others coincide with Leyden In consequence of these changes in the walls of the ventricles, chiefly the left, the heart becomes weakened and either ruptures or becomes paralyzed by some sudden increase in internal pressure which would have once been borne without injury If now, these facts be kept in mind, the great significance of angina pectoris in individuals past middle life becomes apparent and a correct ante-mortem diagnosis of the cause of sudden death possible

THE CLINICAL ASPECT OF GLYCOSURIA

Such is the title of an interesting and comprehensive paper read at the late annual meeting of the British Medical Association, by DR PAVY, whose name is sufficient guarantee of the value of the communication His paper, which was the introduction to a discussion on glycosuria, was followed by one on "Acute Febrile Glycosuria," by Dr Markham Skerritt, and a paper on "Glycosuria," by Dr W R Thomas, all of which are to be found in the *British Medical Journal,* of December 5

The first striking feature in Dr Pavy's paper is a table showing the ages in 1,360 cases of diabetes at which the disease set in, which shows that 30 73 per cent , almost one third of the cases, occurred between 50 and 60 years of age, 24 92 between 40 and 50, giving 55 65 per cent between 40 and 60 "From this period there is a sharp and increasing fall in both directions " This table represents the cases from private practice, and Dr Pavy thinks that a table of hospital cases would show that the greater number consists of patients from 15 or 18 up to 35 or 40 years of age Of the cases tabulated 960 were males and females, a disproportion in favor of males that is rather contrary to the experience of some practitioners Eight of the cases occurred under 10 years, thirty-four between 70 and 80, and one over 80 As regards the family history of glycosuria, Dr Pavy says there can be no doubt that the disease runs in families, in support of which he gives some very striking examples This, however, is only in accord with what seems to be the general experience of accurate observers

As is very well known, the appearance of glycosuria may be sudden, or very gradual In this connection Dr Pavy refers to the fact that the disease may exist for some time without exciting suspicion, and be discovered by the white stains left on the black trousers of patients, the stains being due to the drying of the urine which has splashed on the clothing It is especially in old people that the disease comes on insidiously In regard to the sometimes sudden onset, Dr Pavy mentions the case of a lady who suddenly became very thirsty in the course of an evening and was, on examination, at once recognized as suffering from diabetes Is it not probable, however that many of the cases of sudden onset of diabetes are those in which diabetes insipidus has already existed unnoticed? The exact relation of diabetes insipidus to diabetes mellitus is not definitely defined They may exist together, and their coexistence may be proved Or the usual order may be reversed, and diabetes mellitus be followed by diabetes insipidus

As it is to the nervous system that we must look for an explanation of glycosuria, it is all-important that the nervous symptoms arising in the course of the affection should be carefully noted Dr Pavy is satisfied that " certain symptoms of disordered nerve-action, especially spinal are very apt to accompany diabetes " He has seen so many cases of ataxia associated with this disease, that he has for some time past been led to consider that there is some connection between the two They may come on together, or one may precede the other Again, " pains and manifestations of perverted sensibility are noticed, without ataxia " Exophthalmic goitre is sometimes seen in connection with diabetes, but Dr Pavy is not prepared to insist on a relationship between the two, as with diabetes and ataxia He does not believe in the theory involved in the term " acetonæmia," but is " inclined to consider that the coma depends rather on the exhaustion of certain nerve centres than on the action of any direct poison on the blood " As regards the fatty condition of the blood frequently observed in cases of diabetes, and which has been suggested as a possible explanation of the coma, through the production of fatty emboli, he maintains that it is a purely physiological state " Fat exists normally in the blood after the ingestion of a meal containing much fatty matter "

In the discussion, MR LATHAM called attention to the close relation which, he believed, existed between diabetes, gout and rheumatism He thinks that there are two distinct forms of diabetes 1 One dependent upon modified innervation of the liver, the glucose absorbed from the alimentary canal passing unchanged through the portal system into the general circulation, gout being the analogue of this disorder The glycocine from the glycocholic acid of the bile is reabsorbed from the alimentary canal, instead of undergoing normal transformation, gives rise to uric acid, "which, acting on an enfeebled portion of the medulla oblongata, gives rise to gout" 2 Another form of diabetes has its origin in the changes in the muscular system, and has its analogue in rheumatism The constituent of muscular tissue, which, liberated in excess, gives rise to glycocine and uric acid, and sometimes causes rheumatism, has its oxidation partially interfered with, is hydrated into glycollic acid, which is converted into methyl aldehyde when oxidized Hyperpyrexia from rapid oxidation of lactic acid may result, or lactic acid may be oxidized into aldehyde and thence into acetic acid (from which acetone may be produced) if oxidation be interfered with He regards the distinction between the two forms as of importance in regard to treatment In the second class of cases salicylic acid, gr xl–lxx a day, is of great service, the diet being only slightly restricted In the cases of the first class salicylic acid, he says, has no effect The urine from the second class often contains some substance which dissolves cuprous oxide, and interferes with Fehling's test—a very important point

CIRCULAR CONCERNING THE ORGANIZATION OF THE NINTH INTERNATIONAL MEDICAL CONGRESS

The Secretary-General, by order of the Executive Committee, has issued an official circular announcing the Preliminary Organization of the Congress It contains the list of General Officers who will be nominated for election by the Congress, the members of the Executive Committee, the local Committee of Reception at Washington, and the *Rules* adopted by the Committee on Organization, in the three official languages, English, French and German It is being circulated extensively both in Europe and America

This preliminary circular closes with the following paragraphs "A list of the Presidents, Vice-Presidents, Secretaries, and Members of Council for each Section, will be given in the full programme, to be published at a later period in the progress of the work

"The Executive Committee cordially invites members of the medical profession and men eminent in the sciences collateral to medicine, in all countries, to participate in the International Medical Congress of 1887

"Communications and questions relating to the business of the Congress should be addressed to Dr N S Davis, Secretary-General, 65 Randolph street, Chicago, Illinois "

We are informed that the organization of the Sections is already well advanced, and the work of arranging the full programme for the Congress will be prosecuted by the Executive Committee as actively as possible

AMERICAN PUBLIC HEALTH ASSOCIATION

The recent meeting of this important National Organization in Washington was well attended, and many important papers and reports were presented, as our readers will learn from the unusually full report of the proceedings which is being published in our columns The opinion seemed to prevail very generally among those present, that the General Government ought to establish some kind of National Health Organization, but in regard to details as to the form the organization should take, there appeared to be as great a diversity of views as ever Some advocate the reinvigoration of the National Board of Health, some, the establishment of a new Board to be composed of members selected from the several State Boards of Health, others, a Bureau of Health headed by a Commissioner as an attachment to either the Interior, the State or the Treasury Departments of the General Government, while a few at least, advocate a distinct Department of Health on the same basis as the Departments of the Interior, the Treasury, etc , and the official head of which would be a Cabinet Officer The latter would not only constitute the most efficient method, but it would be more in accord with the extent and importance of the interests to be committed to the care of such a department

CLOSE OF VOLUME V

It is hardly necessary to remind our readers that the present number completes the fifth volume of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, and contains a full index and title-page As the first number in January will commence Vol VI, the present is an excellent time for new subscribers to send their addresses and the five dollars for THE JOURNAL one year A few of our *subscribers* are in arrears, and should send us the amount due without delay

We are informed by the Treasurer that a considerable number of members of the Association have thus far failed to send him their membership dues for the current year All such should forward the amount due to the Treasurer, Richard J Dunglison, M D , Lock Box 1274, Philadelphia, without further delay

CHOLERA AND SMALL-POX — The first of these diseases still prevails to some extent in Spain and in one Province, Palermo, in Italy, while the latter continues to destroy a number of lives in Montreal and its environs each week

SOCIETY PROCEEDINGS

AMERICAN PUBLIC HEALTH ASSOCIATION

Thirteenth Annual Meeting, held at Washington, D C, December 8, 9 and 10, 1885

(Specially reported for THE JOURNAL)

(*Continued from page 694*)

TUESDAY, DECEMBER 8—EVENING SESSION

THE PRESIDENT called the Association to order at eight o'clock, and introduced Dr J M TONER, Chairman of the Reception Committee, who stated that it was expected that the President of the United States would be with them that evening, but a letter, which he asked the Secretary to read, fully explained the President's absence

EXECUTIVE MANSION,
WASHINGTON, DECEMBER 7, 1885

DR J M TONER

My Dear Sir —I am sorry that the condition of the public business is such that I cannot accept the invitation which you kindly tendered me in behalf of the American Public Health Association to attend its annual meeting tomorrow evening I beg to assure you that my expression of regret is not merely formal, but actually indicates a sense of deprivation which attends an inability to give by my presence, as requested, the fullest endorsement of the object and purposes as well as the work of the Association

Surely "the advancement of sanitary science" and its practical application to the public health are of immense importance to the people of our land Of course, the value of efforts in the direction of a better understanding of the causes of disease and protection against the same, is too palpable for suggestion or argument But I do not think the advantages of an improvement in the condition and sanitary surroundings of the homes of our workingmen and of the poor among us is sufficiently appreciated Healthful and comfortable habitations indicate the best feature of a country's prosperity and advancement , and men with good health and wholesome surroundings are apt to be contented and useful citizens The difference in the death rate of cities and localities unexplained by natural and inherent causes, is of itself enough to give great prominence to the work of the Association , and if this beneficent organization shall succeed, as it ought, in impressing upon municipalities the duty of sensible and thorough sewerage , a plentiful and pure supply of water and general cleanliness, together with a proper construction of school buildings for the children of their citizens, it may well point with pride to its achievements With the hope that the Association may be the means of constantly increasing benefits to the country, and with expressions of heartiest sympathy with its work, I am, Yours sincerely,

GROVER CLEVELAND

PRESIDENT CLEVELAND ELECTED AN HONORARY MEMBER

DR TONER then moved that the President of the United States be elected the first honorary member of the Association, which was adopted unanimously

DR TONER then delivered the

ADDRESS OF WELCOME

He said that, however appreciative he was of the importance of the work in which the Association was engaged, he lacked the ability to fully voice the sincere and hearty sentiments of good-will for the medical profession, and all laborers in the sciences which have for their aims the advancement and good of the human race All know the beneficent aims of this Association, and the great value of your recommendations to public health authorities, and look hopefully to the benefits which cities, towns, hamlets and rural homes throughout the land may derive from a thorough and impartial consideration by you, to solve the many complex questions of sanitary science The legislatures of the States and the councils of cities are now willing to be advised by competent sanitarians as to the causes of diseases and the adoption of necessary means for their removal or prevention A knowledge of the laws of health does not come to a man by intuition, but by education and experience He then spoke of the International Sanitary Conference held in Washington in 1882, and the appointment of the several commissions to investigate cholera and yellow fever He then referred to the approaching meeting of the International Medical Congress, to meet in the City of Washington in 1887

DR JAMES E REEVES then delivered

THE PRESIDENT'S ADDRESS

(See page 645, THE JOURNAL of Dec 12)

WEDNESDAY, DECEMBER 9, SECOND DAY

THE PRESIDENT called the Association to order at 9 30 A M The attendance was much larger than the day before, there being 126 who had registered

The following were

ELECTED MEMBERS

Drs G A Doren, Columbus, O , B C Brett, Green Bay, Wis , D I Wallace, Newark, N J , F Edmister, Brooklyn, L Slusser, Canton, O , Robert Martin, Milwaukee, F Montezambert, Quebec, George Cook, Concord, N H , A J Wolff, Hartford, W G Alling and L J Sanford, New Haven, D R Hagan, Chas McMillan, J O Stanton, Wm M Gray and T E Hammond, Washington, D C , W E Taylor, Monmouth, Ill , MM George W Baird, U S Navy, M H Stauffer, Allegheny, Pa

The following were

ELECTED ASSOCIATE MEMBERS

Drs Llewellyn Eliot and E P Bliss, and MM John Frazer, Edward Coverly, and F B Sands, of Washington, D C

The Executive Committee also reported that it had not deemed it expedient to adopt the resolution offered on the previous day, by Dr R Harvey Reed, in the matter of securing legislation for the prevention of the sale of diseased meats

The Secretary reported that the Cosmos Club, of Washington, had extended a cordial invitation to the members of the Association, to call upon them at any time during their stay in Washington

Dr P H Bryce, of Toronto, Canada, read an exhaustive paper on

SMALL-POX IN CANADA, AND THE METHODS OF DEALING WITH IT

After stating that he felt like a lawyer before a criminal court, pleading for a criminal who has boldly declared himself "not guilty" of an epidemic of small-pox, the speaker proceeded to relate the circumstances of the outbreak of the present year, stating that it was not until a prominent politician had died from the disease that the entire outside world and Montreal herself awoke to the situation The number of deaths was about 3,000, or about one to every infected house Unfortunately the epidemic was not confined to Montreal alone Among the French the system of sanitation was unable to grapple with the disease Knowing this, the health authorities of Montreal provided the local boards of health with instructions and did everything in their power to warn them of their danger The speaker described in detail the special regulations which were drawn up by the Ontario authorities and the means taken to prevent the spreading of the epidemic All goods, merchandise and people passing in or out of the province were strictly examined The railways lent ready aid in the cause of inspection, and every car was examined and all the railway officials vaccinated Merchandise certificates were issued and the merchants availed themselves gladly of this system, which prevented the cancelling of a large number of their orders Passengers were asked if they came from Montreal, what street and number, and if it was found that they came from near an infected house, their baggage was taken and fumigated, and themselves quarantined for a time In the Province of Quebec equal precautions were taken to prevent the spreading of the epidemic In conclusion the speaker said he thought it very creditable to Ontario that it had succeeded in establishing an internal quarantine through which no case of disease had passed to the neighboring States He thought that the common sense of justice of the association would lead it to agree with him that the unreasonable continuance of the quarantine at the Suspension Bridge should be removed

Dr Wm H Hingston, of Montreal, said My city has been afflicted as no other city on this side of the Atlantic has ever been afflicted But I must say that no city could have made more tremendous efforts to free itself of its affliction It has been mainly through the aid of the United States authorities that the rules for vaccination were enforced more thoroughly than could otherwise have been possible, and he took the occasion to thank the Union for its assistance Montreal had to create legislation for itself on account of its distance from the seat of government, but these rules were sent by special messenger to Quebec and within forty eight hours they were law No province could have done more to rid itself of its epidemic than had Quebec There were no small-pox hospitals or isolated buildings in which patients could be placed, until the outbreak of the disease Disinfection according to the most modern methods was employed The speaker then described the opposition which the health authorities had met with in their efforts for inspection and disinfection

The deaths from small pox in Montreal, he said in conclusion, numbered, as has been stated, 3,000 But by the death of 3,000 children it must not be supposed that it means 3,000 houses in mourning In some of the States, I believe, there is one child to two or three houses, and in such places this number of deaths would affect about 6,000 homes Now, our birth rate, I am happy to say, is enormous No country in the world can exceed it So if you will divide the 3,000 deaths by 5 or 6, you will probably get the number of houses to day in mourning in Montreal

Dr James M Watson, of New Jersey, moved that hereafter, members engaging in discussion of a paper be restricted to five minutes Adopted

Dr Wm M Swift, Quarantine Officer of New York, spoke in detail of the manner in which inspection of Emigrants is carried on at the port of New York City

Dr A N Bell, of New York, denounced the authorities in Montreal for not having the people vaccinated at the outbreak of small pox in that city, and for delaying this important step so long He considered it a crime for a community to have small-pox The gentleman preceding him spoke of the hardships of quarantining their people, they deserved it This epidemic did not come because Montreal is a filthy city, but on account of the bad system of vaccination in use there

Dr Bushrod W James, of Philadelphia, favored compulsory vaccination for the whole country, quarantining people having small-pox, and putting them into the small-pox hospital

Dr James A Stewart, Commissioner of Health of Baltimore, called attention to the dangers resulting from public funerals of persons dying from epidemic diseases

Dr W K Newell, of Jersey City, thought persons ought to be vaccinated two or three times if necessary, or until the last operation produces no result He had adopted a system of vaccinating twice on each arm Care was necessary as to what vaccine was employed

Dr C W Chancellor, of Maryland, read a paper on

IMPURE AIR AND UNHEALTHY OCCUPATIONS AS PREDISPOSING CAUSES OF PHTHISIS

He stated that in England one-fifth of all the deaths occurring are from pulmonary consumption, in France, one-sixth, and in Germany and Austria about one-seventh In the census year of 1880 one-eighth of the deaths occurring in this country were from consumption The causes which lead to this fearful mortality demand more than ordinary consideration.

It cannot be denied that some occupations are more unhealthy than others. There can be no doubt that the inhabitants of cities are less hardy and more subject to pulmonary disease than those of the country. City people, speaking generally, are pale, of lymphatic temperaments, and their muscular system is but poorly developed. Want of a free circulation of a pure, uncontaminated atmosphere is the most powerful cause of this. In addition to this, in cities the passions are more excitable, indulgence in eating and drinking is more common, with many life is sedentary, and the occupations are altogether more unhealthy than those in the country. Take, for example, those engaged in mercantile life—merchants and clerks. These, for sanitary purposes, may be divided into three classes—first, those who have but little exercise, such as book-keepers, second, those who have exercise but are confined to their stores in a superheated, unhealthy atmosphere, as, for example, salesmen, and third, those who have exercise in the open air, or who do out door work. In the first class the digestive organs suffer, the next from diseases of the pulmonary organs, and the third from the prostrating effects induced by over-mental or bodily exertion or by corroding care.

Salesmen are liable to their diseases because they are constantly exposed to their exciting causes, the principle of which are an impure atmosphere and exposure to sudden changes of temperature.

Referring to artisans and laborers who work in manufactories and shops, many of which are badly located, badly ventilated and often abounding in unhealthy dust, under such circumstances said the speaker, the most substantial nourishment, the most temperate habits, cannot prevent their becoming blanched and weakened by disease. Persons habitually breathing a dust-laden atmosphere, as in some manufactories, are more especially liable to pulmonary complaints.

The problem of how to face this evil is simply, How to environ each worker in the prosecution of his work with a pure atmosphere? The solution of the problem could be easily suggested by the sanitary engineer, but its execution is a matter for the Legislatures of the several States. In the meantime it is extremely desirable and even necessary that consumptive hospitals should be established in every city. London has its half dozen and other European cities are not without some provision, but in this country, even in many of the larger cities there is no provision made for so necessary an object. It would be a great and truly useful work to devote an edifice in every large city to so benevolent a purpose.

DR. I. N. QUIMBY thought that some distinction should be made between consumption acquired by occupation and the hereditary form of the disease. He thought that about 75 per cent was acquired, and about 25 per cent hereditary.

DR. BUSHROD W. JONES, of Philadelphia, spoke of an inflammatory condition that may arise and is caused by the presence of fine particles of dust. This should be regarded as a traumatic cause, irritating the mucous membrane, and a distinction should be made between this and the combined causes as impure air, poor food, badly ventilated rooms, etc.

It was then decided to make the report of the Committee on Disinfectants the special order for Thursday morning.

COMMISSIONS ON WORKSHOPS.

DR. HENRY LOMB, of Rochester, offered a resolution recommending that the Government appoint two commissions of three members each, who should visit different parts of the country and examine workshops, etc., with the view of ascertaining what arrangements are made for the health of the operatives, and to recommend remedial measures.

(*To be continued.*)

DOMESTIC CORRESPONDENCE.

CONJUNCTIVITIS DEPENDENT UPON DISEASE OF THE INTRA-NASAL TISSUES.

TO THE EDITOR OF THE JOURNAL:

Dear Sir:—In connection with the references to the above subject in THE JOURNAL for Nov. 14, p. 538, and Dec. 12, p. 672, permit me to call attention, without comment, to the following passage taken from a paper read by your correspondent April 28, 1883, before the Medico-Chirurgical Faculty of Maryland (*vide* Trans., p. 274). "The inflammation of the conjunctivæ which is so often observed in connection with nasal catarrh is generally explained by the extension of the inflammation process through the nasal duct, but I am inclined to regard it in the majority of instances, as a reflex vaso motor phenomenon, the vessel dilatation being kept up by the constant irritation of the sensitive nasal area. In like manner I would explain the recurrent herpes and keratis which have been observed in connection with this disease, the phenomena in these cases being called forth by trophic disturbances." The subject is also alluded to by Hack, of Freiburg (Ueber eine operative Radical-behandlung bestimmter Formen von Migrane, etc., Wiesbaden, 1884), and is now familiar to most specialists in throat affections.

In regard to the reflex dependence of aural phenomena upon disease of the turbinated nasal structures, your correspondent would also like to direct attention to a few sentences from former publications of his own which antedate the recent discussions of this subject in the medical journals. "There is still another way, however, in which morbid conditions of the nose may react upon the circulation and upon the nutrition of the aural chambers, viz. through the reflex agency of the vaso motor and trophic nerves. I am led to the assumption of reflex irritation by the pain and congestion in the ear which occasionally follow the manipulation of instruments within the nasal cavities, or the application of caustics or other remedies to their lining membrane, and furthermore, by the existence of symptoms referable to the ear (tinnitus, pain, etc.), which cannot be explained on any other hypothesis."—*Trans. Med.-Chir. Faculty, Maryland, 1883*, p. 275.

"My experience is, that long standing occlusion of the nostril from deflected septum is always associated with hypertrophic catarrhal conditions of the turbinated bodies and the mucous covering of the septum behind the deflected portion This becomes the starting point of inflammatory disease of the lower air passages and middle ear Inflammation of the former occurs either as the result of mouth breathing and direct extension, or, as I have pointed out elsewhere (*Am Jour Med Sc* , July, 1883), may be the outcome of the constant hyperæmia induced by reflex nasal irritation, the vessel dilatation being kept up by the prolonged stimulation of the reflex centres from chronic nasal inflammation In the same way, I believe that reflected irritation from the turbinated tissues of the nose may react upon the circulation and nutrition of the aural chambers I have recently called attention (*Trans M C Fac* , *Md* , and *Trans Am Laryngol Assoc* , 1883) to this reflex agency of the vaso motor and trophic nerves in the production of middle ear disease, to the recognition of which I was led by the accidental production of symptoms referable to the ear (such as tinnitus, pain, stoppage, etc) during operation procedures in the nose Although my experiments upon this point have as yet taken no definite form, it is quite possible that the aural affection in these cases may find its explanation in pathological conditions of the reflex sensitive area which I have shown to exist in the nasal mucous membrane (*Am Jour Med Sc* , l c) At least, in several cases I have succeeded in reproducing them by artificial stimulation of this area This is a fact of considerable practical importance in the solution of many obscure and intractable cases of middle ear disease whose etiology has been heretofore unrecognized"—*Trans Va State Med Soc* , p 121

John N Mackenzie, M D

Baltimore, Dec 18, 1885

BOOK REVIEWS

Practical Histology and Pathology By Heneage Gibbs M D , Lecturer on Normal and Morbid Histology in the Medical School of the Westminster Hospital Third Edition 8mo, pp 200 Philadelphia P Blakiston, Son & Co 1885 Chicago W T Keener

The scope of the work can be seen readily from the following headings of chapters "Microscope," "On Preparing Tissues for Examination," "On Section Cutting," "On Staining," "On Double Staining," "On Mounting," "On Injecting the Vascular System," "Method of Obtaining Animal Tissues for Examination," "On Preparing and Mounting Pathological Specimens," "On Bacteria," "On Staining Bacteria" The first chapters deal with microscopical technique and are very good, though we cannot commend them as highly as the little book of Friedlander, which was noticed in these pages a few weeks ago More formulæ for staining fluids are given in this than in the latter work, but the directions for manipulating specimens are not so detailed and explicit The chapter pertaining to pathological tissues is short and least satisfactory The chapter on the staining of bacteria is devoted almost exclusively to the staining of tubercle bacilli

The Science and Art of Midwifery By William Thompson Lusk, A M , M D , Professor of Obstetrics and Diseases of Women and Children in the Bellevue Hospital Medical College, Consulting Physician to the Maternity Hospital, etc , etc New Edition, revised and enlarged, with numerous illustrations 8vo, pp xviii, 763 New York D Appleton & Co , 1885 Chicago Jansen, McClurg & Co

It is now just four years since the first edition of this work was given to the public, and the favorable reception of that and the second edition rather preclude the necessity of an extended notice of this, the third edition Many changes in the text have been made in the present edition, and in some cases entire subjects have been rewritten, changes that have been rendered necessary by the great strides that have been made in scientific midwifery during the past three or four years The facts that the book has been so favorably received in this country and abroad, and that it has been translated into Spanish, French and Italian are sufficient to show that it has most unusual merits

ASSOCIATION ITEMS

REPORT OF THE LIBRARIAN

I have the honor to present the accompanying catalogue of additions made to the Library of the Association by donations, exchanges, purchase and subscription, during the past year The Catalogue submitted herewith shows that since last report, 183 distinct titles have been added, including 56 volumes of Transactions, Hospital Reports, Reports of Boards of Health, and Medical Journals not previously received and catalogued Also, that there has been an addition to the library of a number of valuable works by standard American authors, sent for review to the Editor of The Journal, and by him transmitted to the Library, which, with this increase, now contains 2,249 distinct titles, and comprehends about 6,500 volumes, including pamphlets

I would again draw the attention of the Association to the fact, that the present quarters of the Library are inadequate, and hope that some means may be found to make this valuable collection more accessible to the profession I recommend, as on former occasions, that the system of exchanges be continued and wherever possible, increased Also, that $200 be placed at the disposal of the Librarian, to be expended in binding periodicals, transactions, etc , and in the purchase of such journals, etc , as are needed to complete sets already on our shelves

My thanks are again due, and hereby expressed to the Editor of The Journal of the Association for his active cooperation, by prompt transmission to me of books, pamphlets, journals, etc, sent to him for review or as exchanges

Respectfully submitted

C H A KLEINSCHMIDT, M D,
Librarian

3113 W St, Washington, D C, April 28, 1885

ADDITIONS BY DONATIONS, EXCHANGES, PURCHASE, AND SUBSCRIPTION, TO THE LIBRARY OF THE AMERICAN MEDICAL ASSOCIATION FROM MAY 1 1884, TO APRIL 15 1885

Adams, S S, Incontinence of Urine in Children, Sudden Death in Diphtheria, Strabismus Convergens Reprints Donor, Author

Amidon, R W, Student's Manual of Electro Therapeutics

Armangue y Tuset, José, Mimicismo o Neurósis, Reprint Barcelona, 1884

Army Engineer Department (U S), Annual Report of the Chief of Engineers for 1884 Donor, Engineer Bureau Professional Notes by Capt Edward Maguire, 1884 Report on the International Exhibition of Electricity held at Paris D P Heap 1884 Donor, Engineer Bureau

Army Medical Department (U S), Index Catalogue of the Library of the Surgeon-General's Office Authors and Subjects, Vols IV, V Donor, Surgeon General's Office

Ayres, M, Diseases of the Rectum

Baker, H B, Typhoid Fever and Low Water in Wells Donor, Author

Baskett, N M, Visions of Fancy Donor, Author

Brasol, Leo von, Wie entledigt sich das Blut von einem Ueberschuss an Traubenzucker? Physiolog Institut zu Leipzig Donor, Author

Bridge, N, The New Science of Medicine

Browne, L, Science and Singing

Bulkley, L D, Eczema and its Management

Burnett, C H, The Ear, its Anatomy, Physiology and Diseases

——— S M, The Comparative Frequency of Eye Diseases in the White and Colored Races in the United States Are there Separate Centres for Light, Form, and Color Perception A Nomenclature of Ophthalmology Theories of Color Perception Reprints Donor, Author

Calhoun, A W, School Hygiene in Relation to its Influence upon the Vision of Children Reprint

Carter, J M G Synopsis of the Medical Botany of Illinois

Chancellor, J E, Mineral Waters, History, Source, Classification Address, 1883

Chapman, H C, History of the Discovery of the Circulation of the Blood

Chesney, J P, Shakespeare as a Physician

Chisolm, J J, Glioma of the Right Eye Reprint

Chittenden, R H, Significance of the Absorption and Elimination of Poisons in Medico Legal Cases Reprint

Clevenger, S V, Comparative Physiology and Psychology

Commercial Relations of the United States, 1882 and 1883 Vol I, Europe, pp 786, Vol II, Africa, America, Asia, Australasia, and Polynesia, pp 865 Washington, 1884

Reports from the Consuls of the U S on Commerce, etc, of their Consular Districts, No 40 to 46 Donor, State Department

Comparative Vocabularies of the Indian Tribes of British Columbia, by W F Toulemie, Montreal, 1884

Contributions to North American Ethnology, Vol III Washington, 1877 Donor, Department of the Interior

Corning, J L, Brain Exhaustion

Culbertson, H A, Comparison of Total and Manifest Hypermetropia, as determined by the Prisoptomer, With and Without the Use of Mydriatics Donor, Author

Dalton, J C, Topographical Anatomy of the Brain Folio, 3 vols

Daly, W H, Some questions relating to Tonsillotomy Reprint Address in Medicine Donor, Author

Davis, C G, Gelseminum Sempervirens Reprint

Dawbarn, R H M, Aid to Materia Medica

De Carvalho, M, Pathogenia e Prophylaxia do Cholera Morbus

Delavan, D B, Social History of the Eighth International Medical Congress, Donor, Author

Doughty, W H, The Primary Conversion of Occipito Posterior into Occipito Anterior Positions of the Vertex Reprint

Eastman, J, Abdominal Surgery Reprint

Eggert, W, Treatment of Urinary Displacements

Elliott, H W—Seal Islands of Alaska Washington, 1881 Donor, Interior Department

Erichsen, H, Medical Rhymes Donor, Author

Everts, O, Criminal Responsibility of the Insane Reprint

Findley, W M, Rate and Causes of Maternal Mortality in 1,000 Cases in Private Obstetrical Practice Reprint

Foreign Relations of the United States, papers relating to the Washington, 1884 Donor, Department of State

Frapont, F, Note sur deux observations d'Ovariotomie

Fry, H D, Some Observations on the Diagnosis of Pregnancy in its Early Stage Reprint

Gaston, J McF, Obstruction of the Gall duct

Geological Survey of the United States Mineral Resources of the United States, by Albert Williams, Jr, Washington, 1883

Geological Survey, (U S), of the Territories Vol XII Fresh Water Rhizopods of North America, by Joseph Leidy Washington, 1879 Vol III The Vertebrata of the Tertiary Formations of the West, by E D Cope Washington, 1883 Pp 1009, with plates Donor, Department of the Interior

Geological and Natural History Survey of Canada, A R C Selwyn, F R S, Director Descriptive Sketch of the Physical Geography and Geology of the Dominion of Canada, with Maps, by A R C Selwyn and G M Dawson Montreal, 1884

Glasgow, W C, Varicose Aneurism of the Aorta

Gompertz, Conrad, Ueber Herz und Blutkreislauf bei nackten Amphibien Physiologisches Institut zu Leipzig Donor, Author

Gunn, M , The Philosophy of Manipulation in the Reduction of Hip and Shoulder Dislocations Reprint Donor, Author

Hammond, W A , Sexual Impotence in the Male

Hart D B , Atlas of Female Pelvic Anatomy

Hartigan, J F Lock-Jaw of Infants Donor, Author

Hewitt, Graily, Diseases of Women 2 vols

Holt, Joseph, Quarantine and Commerce

Berlin, Charite Annalen Bd XI 1884

Hospital Reports —London —St Thomas' Hospital Reports (New Series) Vol XL , 1882, Vol XIII, 1884 Arkansas —State Lunatic Asylum 1844 Connecticut —Connecticut Hospital for the Insane 1885 Maryland —Presbyterian Eye, Ear and Throat Charity Hospital 1884 Massachusetts —City Hospital, Boston 1883, 1884 Ohio —Cincinnati Hospital 1883 Pennsylvania — Western Pennsylvania Hospital 1884 Rhode Island —Butler Hospital for the Insane 1885

Howe, J —Excessive Venery, Masturbation and Continence

Hughes, C H —The Curability of Locomotor Ataxia, etc The Hygiene of the Nervous System and the Mind—Moral (Affective) Insanity

Hutchison, J C —A Treatise on Physiology and Hygiene The Laws of Health

Health Reports —California —Annual Report of Health Office of San Francisco 1884 Connecticut —State Board of Health 1883 Delaware Board of Health Reports of President and Secretary, 1884 Board of Health, of Wilmington —Report 1884 District of Columbia —Report of Health Officer for 1883 Kentucky State Sanitary Council Proceedings, 1884 Louisiana —Board of Health Quarantine and Sanitary Operations during 1880, 1881, 1882 and 1883 By Joseph Jones Inaugural Address of the President of the Board Massachusetts —Board of Health of Boston 1884 Michigan State Board Report for 1883 Laws relating to the Public Health, in force September 8, 1883 Supplement to Report for 1883 Proceedings and Addresses at a Sanitary Convention, held at Ionia, Mich , December 13 and 14, 1883 Missouri State Board 1884 New York —Report on the Unsanitary Condition of the Village of Bath Report on the Epidemic of Enteric Fever in Port Jarvis —Report of State Board of Health for 1884 West Virginia State Board 1884

Interior Department (U S) —Annual Report of the Secretary of the Interior, 1881–82 Three vols 1882–83 Three vols Donor, Department of the Interior

Jackson, A R —Ovulation and Menstruation Reprint

Johnson R W —Cryptorchidism Reprint

Kerlin, J N —Provision for Idiotic and Feeble Minded Children Reprint

King, A J A —Manual of Obstetrics

Kinloch, R A —Education the Means of Unifying the Medical Profession Reprint

Kleinschmidt, C H A —A Case of Prolapsus Uteri, Complicating Labor Reprint

Lefferts, G M —Diagnosis and Treatment of Chronic Nasal Catarrh Reprint

Leonard, C H —Manual of Bandaging

Levick, J J —Typhoid Fever and its Treatment Reprint

Lewis, W J —Hair, Microscopically Examined and Microscopically Considered

Little, J L —The Treatment of Fractures of the Patella by the Plaster of Paris Splint

Lundy, C J —The Dry Treatment of Chronic Suppurative Inflammation of the Middle Ear Muriate of Cocaine in Ophthalmic Surgery Reprints

Lydston, G F —Prophylaxis and Treatment of Puerperal Septæmia

Mackenzie, M —Diseases of the Throat, vol II

Marine Hospital Service —Annual Report of the Supervising Surgeon General for 1883, 1884

Answer of the Supervising Surgeon General to the National Board of Health

J Coleman, Argument of, before the Committee on Public Health of the House of Representatives

Report of the Secretary of the Treasury on the Administration of the National Quarantine Service and Epidemic Fund

Medical Education and the Regulation of the Practice of Medicine in the United States and Canada, prepared by the Illinois State Board of Health, 1884

Meylert, A P —The Opium Habit

Morris, J —Milk, its Adulteration, Analysis, etc Reprint

Mumford, S E —A Question in State Medicine

Nicholson, A W —Analysis of One Hundred Cases of Labor

Palmer, H —Galvanization and the Continuous Current

Plunkett, J D —Vital Statistics in Tennessee Reprint

Prince, A E —Peroxide of Hydrogen in Suppurative Conjunctivitis and Mastoid Abcesses Reprint

Prince, D —Palato Plasty

Radlkofer, L —Ueber die Methoden in der Botanischen Systematik Munich, 1883

Report of the Commissioner of Education, 1882-83

Roberts, J B —Surgical Delusions and Follies

Roberts, W O —Aneurism of the Femoral Artery and a Knife Wound of the Intestines Reprint

Rohé, G H —A Text-Book of Hygiene

Saville, J H —A Reply to Dr A Y P Garnett

Semple A —The Diseases of Children

Sharp, H J —A State Board of Medical Examiners Reprint

Shoemaker, J V —Weitere Untersuchungen uber die Natur und Wirkung der Oleate, I, II Reprint Address on Practical Medicine

Smith, R M —Die Warme des erregten Saugethier-Muskels Physiological Institute at Leipzig Donor, Author

Smithsonian Institute —Annual Report of the Board of Regents for 1882

State Legislation on the Teaching of Physiology and Hygiene in the Public Schools Petition of the New Orleans Auxiliary Sanitary Association to the General Assembly of the State of Louisiana

Transactions of Foreign Societies —Amsterdam —Koninklijki Akademie van Wetenschappen Verslagen en Mededeelingen 1882 XVIII Bonn —Naturhistorischer Verein der Preussischen Rheinlande und Westfalens Verhandlungen 9 Jahrgang Hft 1 Bonn, 1882 Supplement Die Kafer Westfalens Fr Westhoff 4 Fol 10 Jahr gang Hft 1 and 2, 1883 Bordeaux Société de Pharmacie Bulletin 24 Année, 1884 May, June Brussels —Academie Royale de Médecine de Belgique Bulletin XVIII, 3-12, XIX, 1 Lausanne —Société Vaudoise des Sciences Naturelles Liege —Société Medico Chirurgicale Annales 23 Année, 3-12 Compte Rendu des Travaux, etc , 1884 London —Obstetrical Society Transactions Vol XXV 1883 Luxembourg —L'Institut Royal Grand Ducal Publications, etc XIX Moskow —Societé Imperiale des Naturalistes Bulletin 1883, 3, 4 1884, 1, 2 Munich —Koniglich-Bayerische Akademie der Wissenshaften 1884 Hft 1 New South Wales —Royal Society Journal and Proceedings Vol XVI Sydney Offenbach Verein fur Naturkunde Bericht uber die Thatigkeit desselben 1883 Paris —Académie de Medecine Bulletin XIII 10, 26, 30, 31, 35-53 XIV 1, 3—6 Sociéte Chimique, Bulletin XLII 2, 4 Societe Medicale des Hopitaux Bulletins et Memoires 1 Annee 3 serié, 7-21 XIX 2 serié, 1882 XX 1883 2 Annee 3 serie 1, 2, 3 Wurzburg —Physikausch Medicinische Gesellschaft Sitzungsberichte 1883

Transactions of State Medical Societies —Arkansas, 1884 Colorado, 1884 Indiana, 1884 Maryland, 1884 Massachusetts, Vol XIII, No 3, 1884 (with Triennial Catalogue and Directory) Michigan, 1884 Minnesota, 1884 Nebraska, 1884 New Hampshire, 1884 New Jersey, 1884 (and State Pharmaceutical Association, 1884) New York, State Medical Society, 1883-4, State Medical Association, 1884 Oregon, Vol XI Pennsylvania, Vol XV, 1884 Tennessee, 1884 Texas, 1884 (and President's Annual Address) Vermont, 1883, 1884 Virginia, 1883 West Virginia, 1884 Wisconsin, 1883

Transactions of Special Societies —American Dermatological Association, 1884 American Gynæcological Society, Vol VII, 1884 American Medical Association, Vols I and II, (Purchase) Southern Illinois Medical Association, 1884 Michigan, Registrar's Report for 1871 to 1876, inclusive

Stinson, M H —Work of Women Physicians in Asia

Swazy, H R —A Handbook of the Diseases of the Eye

Sveringen H —Post-partum Intra-uterine Injections of Carbolic Acid Reprint

Tadlock, A B —Address delivered at Chattanooga

Taylor, J E —Occipito Posterior Presentations Reprint

Taylor, T —Internal Parasites in Dometic Fowls, and Butter and Fats

Theobald, S —Recent Theories regarding the Pathogeny of Sympathetic Ophthalmia, viewed from a Microscopic Standpoint Reprint

Thomas, H M —Questions in Physical Diagnosis, etc , of Diseases of the Chest

Thornton, J B —Gulf Coast Quarantine

Tiffany, T B —Granulations and Pannus treated by Jequirity Glioma Retinæ Reprints

Ultzmann, R —Pyuria

United States National Museum —Proceedings Vol V, 1882, VI, 1883 Bulletin Nos 16 to 26, inclusive Donor, Department of the Interior

Wagner, C —Diseases of the Nose

Warren, J H —A Plea for the Cure of Rupture

Welch, W M —The Jenner of America Reprint

Westbrook, B F —On the Etiology of Pulmonary Phthisis Reprint

Whitla, W —Elements of Pharmacy, Materia Medica and Therapeutics

Wilder, A M —Old and New Codes

Wilson J C —Diagnosis of Tumors of the Anterior Mediastinum Reprint

Wood, W H —Phthisis Pulmonalis Reprint

Wright J W —Lecture on Diseases of the Rectum

Wooldridge, L C —Ueber einen neuen Stoff des Blutplasmas Physiologischen Institut zu Leipzig Donor, Author

Wyman, Hal C —A Useful Catheter for the Operation for Vesico vaginal Fistula The Management of Pott's Disease of the Spine in Young Children

Ziegzer, G J —The Basic Pathology and Specific Treatment of Diphtheria, Typhoid, etc

[The list of foreign and domestic exchanges, college announcements, etc , is omitted for want of space]

MISCELLANEOUS

Important Legal Decision —In the case of Boor *vs* Lowry, the Supreme Court of Indiana, on Nov 4, 1885, decided that an action for damages for injury to the person caused by malpractice of the physician, does not survive the death of a physician and cannot be maintained thereafter, no matter in what form it may be brought Elliott & Zollars, J J , dissenting

Dr John C Draper, Professor of Chemistry in the Medical Department of the University of the City of New York, died of pneumonia, at his home in that city on December 20, after a short illness, in his fifty-first year

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE WEEK ENDED DECEMBER 12 1885

Yemans H W , Passed Asst Surgeon, granted leave of absence for fifteen days Dec 7, 1885

Bratton, W D , Asst Surgeon, when relieved to proceed to San Francisco, Cal Dec 12, 1885

Norman, Seaton, Asst Surgeon, appointed an Asst Surgeon, Dec 11, 1885 Assigned to duty at New York, N Y Dec 12, 1885

INDEX VOLUME V

PAGE
ABDOMINAL diseases relation to those of heart 486
  section 408
  surgery in Europe 405
Abcess acute pelvic 36
  alveolar treatment of 207
  cold iodoform ether in 99
  lost drainage tubes in 673
  lumbar 505
  of frontal sinuses 133
  of liver 598
  pneumonic 675 696
  retro pharyngeal 79
Accommodation, apparatus for showing 134
Acne caused by urethral irritation 306
Acker antipyrin in fevers 571 581
  psammoma of 4th ventricle 635
Adams antipyrin 621 635
Adonis vernalis 348
Agnew operation for removal of dislocated lens 132
Albuminuria, absent in puerperal convulsions 324
Alcohol in pneumonia 612
  action on digestion 639
  in sickness 276
Alcoholism chronic lesions of 608
Alkalies action on digestion 639
Alkaloidal solutions preservation of 210
Alum in purulent ophthalmia 154
American Academy of Medicine 448 522 550
  Dermatological Association 302 328
  Gynæcological Society 442 464 499
  Medical Association information for members 301 448 474 503 559 587 643 672
    relations to International Congress 629
    work for next meeting 578
  Ophthalmological Society 132 159
  Otological Society 187
  Public Health Association 301 560 690 711 712
    President s Address 645
  Rhinological Association 252 364
Alleghany Springs medicinal qualities of 383
Ammonia intravenous injection of in cholera 134
  treatment of typhoid fever 404
Amputation for necrosis of tibia and fibula 69
Amsterdam University of prizes at 94
Anæmia auto transfusion in 463
  cerebral reduced iron in 181
Anæsthesia action on frog's heart 419
  artificial 529
  general effect on cocaine mydriasis 347
Anæsthetic bromide of ethyl as 561
Anæsthetics ancient 470
Anatomy, act Illinois 220
Andrews chemical diagnosis of cancer 177
  climatic relations of cancer and consumption 454
  drainage tubes in abscess cavity 673
  floating cartilage of knee 673
  laparotomy for gun shot wound 177
  ligature of vertebral artery for epilepsy 178
  lumbar abcess 505
  olive oil as a menstruum for cocaine 162
  peptone in sarcoma 177
  pulmonic surgery 261
  treatment of purulent conjunctivitis 133
  tumor of back 673
  synovitis of knee 673
Aneurism arterio venous 51
  of iliac 686
  traumatic of axillary 38
Angear Dr J J M 364
Angina pectoris diagnostic significance of 709
Angioma pigmentosum 274
Aniline oil poisoning by 499
Anisic acid 470
Ankle resection of 235
Ano vesical centre localization of 128
Antipyrin in fevers 571 581
  action of 441 626
  in hectic fever 460
  physiological action 621 636
Antipyretic new 470

PAGE
Antipyretics in pneumonia 612
  new 689
Antiseptic coffee as an 656
  new 514
Antrum diseases of 536
Anus fissure of 29
  fistule of operation for 100
Aorta aneurism of rupturing into pericardium 609
Apomorphine in croup and bronchitis 573
Aphasia syphilitic 330
Armor Dr S C obituary of 503
Army Medical Department changes in, 28 56 84 112 140 168 196 224 252 280 308 336 364 392 420 448 476, 504 532 560 588 616 644 672 700
Arsenic in lymphadenoma 460
  in multiple sarcoma of skin 20
  should it be given to nursing women 296
Arteries changes in after ligature 604
  large ligature of 628
  umbilical changes in after birth 604
Arthrectomy of the knee 432
Arthur quadruple pregnancy 167
Articular lesions suppuration after rupture of 235
Ashton tracheotomy in croup 440
Aspergillus glaucus 105
Aspirating needle new 231
Aspiration a cause of spread of tuberculosis 379
Asthma etiology of 327
  lipocardiac 294
  operative treatment of 272
  pyridine in 50
  relation to skin diseases 708
Astigmatism progressive 134
Atkinson fissuri ani 29
  irritable rectum 441
Atlee Dr John L death of 448
Atrophy traumatic linear 19
Atropine influence of on secretion of sweat 542
Auger Dr D R H 308
Aural troubles in children 426
Auricle operation for malformed 512
Auscultation signs in vessel wounds 573
Autoplasty 198
Axillary artery aneurism of 38
Axis traction forceps 446

BACILLUS anthracis 221
  influence of solar light on 471
  hay 221
Back tumor of 673
Bacteria relation to puerperal inflammations 552
  role in parturition 281
Bacterial therapeutics 403
Bacteriology hygiene and 700
Baer ovarian cystoma 330
  polycystic ovarian tumor 332
Baker relation of rainfall and water supply to cholera 693
Bartlett laceration of cervix uteri 242
Baskett pistol shot wound of mouth 417
Baths in puerperal eclampsia hot 350
  in typhoid fever method of giving 349
Bauer cocaine habit 385
Beef poisonous disease from 104
Bellevue Hospital surgical practice in 556
Benzoin compound tincture of 375
Benzol in epithelioma 430
Bermann cystic goitre 668
Berlin University students of the 140
Bernays cholecystotomy 387 616
Bigelow notes in surgical gynæcology 449
Bile what becomes of it 513
Biliary colic treatment of 41
Billings state medicine 309
  tabulation of deaths 690
Birth with membranes intact 441
Bishop operation for malformed auricle 512
Bladder cocainization of 70
Blepharoplasty for ectropion 135
Blind circulating library for 556
  congress of teachers of the 276

PAGE
Blindness recovery from 159
  sun 483
Blood for transfusion leech secretion in 41
  how to make it 57
  letting in pneumonia 612
  ox desiccated 294
Bone, engrafted experiments on 295
Bones wiring new method 431
Bontecou laceration of perineum 248
Borck, abdominal surgery 389
Borner, Dr Paul death of 392
Bowditch arrest of phthisis 654 697
  pneumatic differentiation 125
  traumatic linear atrophy 19
Bowel, fissure or ulcer of 29
Bowling Dr W K death of 187
Brain, concussion of meningitis from 151
  disease ophthalmoscope in diagnosis of 477
    case of 649
  excitability of, duration of 275
    electrical 152
  hydatid tumors of 183
  plaster model of 333
Bright s disease 211
  prognosis in 639
British Association for Advancement of Science 419
  Gynæcological Society 25
Bronchitis apomorphine in 573
Brose fracture of skull 388
Brown lacerations and fissures of os 400
  scarlet fever 406
Brucine in ear diseases 190
Bryce small pox in Canada 713
Buckham prophylaxis of diphtheria 53
Buddenseick s sentence 109
Budin Professor 25
Bulkley castor oil in skin diseases 96
Bull abcess of frontal sinuses 133
  unilateral temporal hemianopia 134
Bullock Wm Gaston obituary of 195
Burnett cocaine and brucine in ear diseases 190
  chronic otitis and chronic rhinitis 189
Burrall reduction of temperature by ice bags 559
Busey hygiene of child bearing life 432
Byford infantile eczema 244
  and allied eruptions 317
  leio myoma of vagina and uterus 192
  nervous paroxysm 566 582
Byrd tetanus 399
  urethral stricture 356

CÆSAREAN section 491 707
Cadavers disposal of débris of 353
Caffeine valerianate in malaria 657
Caldwell electric and nerve forces 225
Calculi renal 167
  urethral 65
Calculus in vermiform appendix 42
Canada small pox in 713
Cancer and consumption climatic relations 424
  chemical test for 185 708
  deaths from in past decade 306
  diagnosis of chemical 177
  hospital New York 306
  of digestive organs 411
  of liver primary 608
  of mamma 607
  vaginal hysterectomy for 169
Canned foods poisoning from 75
Canula new 231
Carcinoma (see cancer)
Cardiography 141
Carolina North as a health resort 701
Carpenter Dr Wm B death of 560
  neoplasms of naso pharyngeal cavity 652
Carter tonsillitis 694
Cartillage floating 673
Cascara Sagrada 600
Casselberry membranous occlusion of posterior nares 148
Castor oil in skin diseases 96

PAGE

- Cataract at 60 years 159
  - cure of 583
  - extraction, intra capsular injection of water in 573
  - medical treatment of 583
  - operations, dressings after 583
- Catarrh gastric copperas in 542
  - ordinary 617
- Cautery in destructive keratitis 160
- Cavities closed micro organisms in 172
- Celloidin imbedding in 81
- Cells and bacteria, battle of 216
- Cemeteries large dangers of 698
- Cephalhæmatoma intra cranial 385
- Cervix complete dilatation essential for forceps operation 238
  - conical operations for 127
  - laceration of 242
  - lacerations and fissures of 400
- Chadwick peritalsis of the genital tract 493
  - relaxation of vaginal outlet during labor 493
- Chancellor inhumation and cremation 438
  - predisposing causes of phthisis 713
- Chancre of tonsil diagnosis of 296
- Charities Commissioners of New York 361
- Charlton typho malarial fever 418
- Cheatham neuro retinitis albuminurica 150
  - report on otology 48
- Chemist of N Y State Board of Health 109
- Chemistry report on 408
- Cherry wild in strychnine poisoning 486
- Chicago Gynæcological Society 47 100 475
  - Medical Society 105 241 414 469 494 582 694
  - Polyclinic 662
- Child weighing 1¼ lb 581
  - bearing life hygiene of 432
  - hood lymphatic leukæmia in 609
- Children acute aural troubles in 426
  - acute encephalitis of 542
  - dilatation of stomach in 295 576
  - diseases of report on 49
  - enteritis of temperature of abdominal wall in 603
  - forms of paralysis in 520
  - fracture of thigh in steadle splint for 658
  - gastric catarrh of sulphate of iron in 541
  - new born hæmorrhages into cavities of 41
- Chinolin tartrate 348
- Chloroform in strychnine poisoning 486
  - in labor 26
- Chloroma 377
- Cholecystotomy 387 584 616
- Cholera beds at St Bartholomew s 276
  - dejecta ptomaines in 471
  - epidemic 264
  - hog virus of 693
  - in Europe 196 712
  - inoculation 103
  - in Marseilles and Toulon 56
  - in Spain 55 246
    - deaths from 140
  - intestinal etherization in 657
  - intravenous injections in 234
  - precautions in America 196
    - in Russia 28
  - prevention and restriction of 107
  - relation of rainfall to 693
  - treatment of algid state of 179
- Choroid coloboma of 161
- Chrysophanic acid external use of 348
- Circulation disorders of treatment 462
  - influence of pneumatic differentiation on 591
- Citric acid in malignant tumors 209
- Clarke renal calculi 167
- Cleanliness potency of 315
- Climatic treatment of disease 523
- Club foot section of ligaments in 297
- Cocaine 12
  - anæsthesia from measurement of 162
  - does it cause congestion 190
  - habit 385
  - hypodermic use of 668
  - in affections of upper air passages 170
  - in dental surgery 290
  - in ear diseases 190
  - in extraction of a needle from foot 70
  - in gynecology 654
  - in hay fever 181 234
  - injurious effects of 52
  - in surgery 586
  - in venereal disorders 350
  - in urethral carruncle 350
  - mydriasis effect of anæsthesia on 347
  - olive oil as a menstruum for 162
  - physiological action of 233
  - poisoning by 430
- Cocaineization of the bladder 70
- Code the 584
- Coffee roasted an antiseptic 656
- Coggeshall epidemic at Plymouth Pa 437
- Coition rupture of ovarian cyst during 54
- Cold action on microphytes 419
- Coleman ophthalmoscope in diagnosis of brain disease 477
- Colo proctitis treatment of 63
- Columbia District of Medical Society, 549 635 668
- Columbus Medical Journal criticism of 362
- Comparisons unprofitable 655
- Congress International Medical, 15 71, 247 325 334 433 461 472 473 502
  - Allegheny Co Medical Society and 194 280
  - American Medical Association and 237, 351
  - Camden Co Medical Society and 643
  - Columbia Co Medical Society on 700
  - Committee meeting in Chicago 43
    - on organization of 271
    - original 278
    - executive 399 687
  - data for history of 136
  - game of bluff and its object 156
  - its enemies 129
  - mistakes and who made them 101
  - modesty 403
  - more signs of progress 213
  - North Western and North Eastern Ohio Medical Association on 194
  - oral and dental section of 661
  - organization of 297
  - circular relating to 711
  - profession in Philadelphia and 51 108
  - progress of public sentiment 186
  - public sentiment on 240
  - relations of American Medical Association to 629
  - report of committee on 209
  - rules of 300 475 574
  - some difference 355
  - special announcement 643
  - what should be done 155
  - why opposition should cease 661
  - National Sanitary 528
- Conjunctivitis dependent on nasal disease 538 714
  - purulent treatment of 133
- Conlin placenta prævia 363
- Conrad suicide 440
- Constipation Friederichshall water in 460
- Consultation with Homœopaths 104
- Consumption cancer and climatic relations 424
  - creosote in 631
  - tubercular is it hereditary (see phthisis) 612
- Contagious diseases hospitals for 109
- Convallaria maialis 348
- Convulsions puerperal without albuminuria 524
- Corrigenda 616
- Corson Dr John obituary of 110
- Coryza acute treatment of 105
  - causation and treatment of 499 533
- Courts a test case in 164
- Couveuse 275
- Coxalgia 408
- Craft injurious effects of cocaine 53
- Craniotomy is it justifiable on living fœtus 405
- Creosote in consumption 631
- Cremation 438 556, 698
  - in Germany 140
- Croup apomorphine in 573
  - tracheotomy in 440
- Cullen infanticide 444
- Cushing premature live birth with membranes intact 441
  - relation of bacteria to puerperal inflammations 552

- DABNEY antipyrin 441
- Darnall rupture of spleen 205
  - uterus bicornis 205
- Daturia poisoning pilocarpine in 402
- Davis Dr John Staige obituary of 138
  - Dr N S Jr 84
  - resorption of foreign bodies 421
- Day letter to Medical News 277
- Deaf mutes conversation tube for 189
- Death rate in England 470
  - relation of sewage and water supply to 166
- Deaths from starvation 166
  - methods of tabulating 690
  - sudden diagnostic significance of angina pectoris in 709
- De Blois retro pharyngeal abscess 79
- Decapitation experiments after 275
  - post phenomena of 214 246
- Denslow urethral irritation causing acne 306
- Derby blepharoplasty for ectropion 135
  - trial lenses 135
  - penetration of eyeball 135
- Derma structure of 304
- Dermatitis herpetiformis 305
- Diabetes cured by removal of uterine appendages 321
  - infantile 23
  - insipidus treatment of 154
  - knee reflex in 233
  - specimens from 607
- Diagnosis physical errors in 345
- Diarrhœa treatment of acute form of 350
- Diazo reaction in phthisis 543
- Dibrell retained dead fœtus 569
- Dickinson report on obstetrics 400
- Difference some 355
- Digestion action of alcohol pepsin and alkalies on 639
- Digestive organs carcinoma of 411
- Diphtheria iodine in 579
  - knee reflex in 233
  - prize 55
  - prophylaxis of 53
  - puerperal 433
  - tracheotomy in 439
- Diploe, blood extravasion into 582
- Disease climatic treatment of 523 701
  - from bad meat 156
- Diseases communicable prevention of 165
  - nomenclature of 168 578
- Diuretics action of 325
- Dixon progress in medicine 416
  - urethral stricture 357
- Doggett poisoning from canned foods 75
- Drainage tubes lost 672
- Draper Dr J C, death of 718
- Dressings dry 534
  - sugar 543
- Ductus arteriosus changes in after birth 604
- Dudley gynecological survey in Europe 495
  - Mrs at an insane asylum 109
- Duhring herpes gestationis relation to dermatitis herpetiformis 305
- Dujardin Beaumetz 392
- Dunglison laws relating to practice of medicine 551
- Dunning operation for floating kidney 683
- Dysentery epidemic 223
  - pathological changes in 387
- Dysodrosis two cases of 303
- Dyspepsia tauro chlorate of sodium in 669
  - with neurasthenia 413

- EAR DISEASE fatal 180
    - cocaine and brucine in 100
  - diseases suggestions on 423
- Eclampsia puerperal 54
  - diaphoretic treatment of 350
- Ectropion blepharoplasty for 135
- Eczema infantile 244 317
- Education female 318
  - medical relation of State to 612
  - preliminary 550
  - study of medicine as a means of 523
- Eggleston gunshot wound of hand 441
- Electric and nerve forces similarity of 225
- Electricity in gynecology 639
- Electrolysis 328
  - in port wine marks 363
  - in surgery 499
- Ellis ventilator 669
- Ellzey report on chemistry 408
- Elsberg Dr the late 698
- Emigrants inspection of 108
- Emmet s operation 85
  - modification of 492
- Encephalitis acute of children 542
- Enchondroma pelvic 708
- Endothelium how to bring out 81
- Enteritis of children temperature in 605
- Epiliptic fit death during 445
- Epilepsy treatment of 154
  - ligature of vertebral artery for 178
- Epithelioma benzol in 159 430
  - of rectum excision 128
- Erasion of the knee 420
- Erythema nodosum treatment of 181
- Ether injections of in sciatica 429
  - irrigation in incarcerated hernia 432
  - new 232
  - styptic 572
- Etheridge fœtus compressus 190
- Etherization intestinal in cholera 657
- Ethyl bromide 360
  - as an anæsthetic 561
  - in labor 461
- Euthanasia moral side of 382
- Eucalyptus in typhoid fever 11
- Evarts over-work as related to insanity 50
- Evidence medical 551
- Eye ball penetration of 135
  - wound of anterior segment of 49

PAGE
Eye dressing after cataract operations 583
  lid benzole in epithelioma of 130

Face and brow presentations 14
Faradization in intestinal obstruction 100
Fat how to reduce it 57
  superabundant reduction of 487
Febrifuge lantanine as a 459
Fecundation artificial 471
Feeding the people better 166
  tube in vomiting of pregnancy 541
Felsenreich s modification of Simpson s forceps 354
Fenn citric acid in malignant tumors 209
  early gonorrhœa 671
Ferrán Dr 246
  a charlatan 112
  French commission and 130
Ferran s proprietary vaccination 56
Fever bilious lemon treatment of 470
  heat production of 575
Fever antipyrin in 571 581
Fibroid bleeding oophorectomy for 633
  polypus uterine 360
  removal of uterus and ovaries for 572
Fibromyomata uterine treatment of 184
Fibrous tumor subserous 197
Fibula use of fossa at lower end of 600
Fingers frostbitten treatment of 686
Fistula in ano operation for 100
Fixation in treatment of joint disease 686
Flint causation and treatment of coryza 533
  prognosis in Bright s disease 659
  A Jr relations of physiology to medicine 639
Fœtus expulsion in arm presentation 574
  compressus 190 607
  retained dead 560
Folsom general paralysis 555
Foods mineral 253
Foot ligation of arteries of 377
Forceps axis traction 354 507
  in labor 25
  operation dilatation of cervix in 238
  paralysis from use of 403
  Tarnier s use of 491
Foreign bodies resorption and disposal of 421
Formad Dr H F 667
  aneurism of aorta 600
  lesions of chronic alcoholism 608
  sac of extra uterine pregnancy 609
Fornento autoplasty 198
Fossa at lower end of fibula use of 600
Fox abdominal section 498
  cataract operations at 60 years 159
  recovery from blindness 150
  test case in the courts 164
  two cases of dysodrosis 303
Fracture of rib by sneezing 512
  of skull 388
  of spine 544
  of thigh steadle splint for 658
Fractures of upper extremity 698
  of humerus new splint for 698
French practice after exposure to sepsis 5
Friederichshall water in constipation 460
Friedlander pneumococcus of 237
Frost Dr C C 55
Frostbite treatment of 686
Fryer bony tumor of orbit 134
Fundenberg Dr George B obituary of 307
  treatment of flexures of uterus 258
Fussell mastoid disease 607

GALVANO CAUTERY in occlusion of nares 148
Gangliona palmar treatment of 374
Garbage disposal of 165
Garrigues puerperal diphtheria 433
Gastric juice amount of pepsin in 237
Gastronomic science 109
Gazette de Gynecologie 476
Garnett treatment of colo proctitis 63
Gayton s vaccination statistics 669
Geddings successful cases of phthisis 546
Gelsemium antidotes 685
Genital tract peristalsis of 493
George school buildings and grounds 165
Germany cremation in 140
  revaccination in 336
Gestation albuminuric causing puerperal eclampsia 54
Getz bromide of ethyl in labor 401
  lost instrument 168
  trocar canula and aspirating needle 231
Gibson Dr R M obituary of 390
Gihon what is medicine? 523
Glass slides mounting on 81
Glaucoma hereditary 285

PAGE
Glycerine as a tænicide 12
  prophylactic against trichinosis 295
Glycosuria, clinical aspect of 710
Goitre cystic 668
  exophthalmic 597
  treatment of 12
Gonorrhœa early 671
  iodoform in 266
Goodell parotitis after operations on genital organs 492
  oophorectomy for ovaralgia 635
  for fibroid 633
  parovarian cysts 359
  uterine dilator 358
Gordon conjunctivitis dependent on nasal disease 558
  Memorial Hospital 276
Gorringe Commander autopsy of 109
Gout iodoform in 321
Graham tuberculo ulcerative syphilide 272
  port wine in 528
Grafting sponge 657
Grant Gen l monument to 240
Grant s case general retrospective view of 131
Granulating surfaces nutritive dressing of 44
Granville s nerve vibration 113
Greenough psoriasis 273
Gun shot wound of hand 441
  of mouth 417
  laparotomy for 202 494 635
Guy William Augustus death of 392
Gynecology cocaine in 634
  report on 400
  electricity in 639
  surgical notes in 449
Gynecological Society of Boston 498

HÆMORRHAGE post partum strychnine in 708
Hæmorrhages into cavities in new born children 41
Hæmostatic powder 2
Haeser Prof death of 476
Hamilton Dr John B 472
  female education 4 8
  laparotomy for gun shot wound 202 635
Hand arteries of ligation of 377
  gun shot wound of 141
  tumor of back of 608
Hands tylosis of 304
Hard to please 453
Hardaway multiple myomata of skin 304
Harlan hereditary glaucoma 285
  section of rectus in myopia 134
Harrison puerperal septicæmia 410
Hart pneumonia 303
  removal of entire tibia 513
Hartigan blood extravasations into diploe 587
  child weighing 1¼ lbs 581
  congenital malformation of knee 581
Hay fever cocaine in 181 234
  treatment of 578 584
Hay Professor Matthew 519
Hayes abscess of liver 598
Health National Board of bulletins 549
  officers 552
  results from sanitation 245
  State Boards of conference of 616
Hearing test for 377
Heart right relations of diseases of to abdominal diseases 486
  weak obscure cases of 445
Heat fever production of 575
Hectic fever antipyrin in 460
Heitzman electrolysis 328
  structure of the derma 504
Hemialbumose 320
Hemianopia unilateral 134
Hernia incarcerated ether irrigation in 452
  strangulated section of intestine 267
Herpes gestationis relation to dermatitis herpetiformis 505
  pathology of 254
  with motor paralysis 486
Hildreth Eugenius A death of 280
Holmes Dr A O death of 532
Holt correction of strabismus 135
  does cocaine cause congestion 190
  1 000 cases of refraction 134
Homan cleanliness 315
Homœopaths consultation with 194
Hooper Dr P O 308
Horner epidemic cholera 264
Hospital Cancer N Y 306
Houghton pneumatic differentiation 506
Howard rare cases in abdominal surgery 466
Howe apparatus for showing refraction 134
  intra ocular tension 159
  measurement of cocaine anæsthesia 162
Hudson diseases of antrum 536
Hughes primary cancer of liver 608

PAGE
Humerus, fracture of, new splint for 698
Hunt sanitary nomenclature 690
Huxley Prof 470
Hydatid cysts of base of skull 485
  tumors of brain 1 83
Hyde lupus vulgaris and tuberculosis 302
Hydrocele antiseptic injection of 181
Hydronaphthol 514 584
Hydrophobia 471
  Pasteur s work in 669
Hygiene of child bearing life 432
  and bacteriology 700
  study in 56
Hygrine or cocaine 12
Hyoscine hydrobromate of 485
Hypnone 632
Hypnotic hypnone as a 632
  urethrane as a 459
Hysterectomy supra vaginal 637
  vaginal for cancer 169
Hystero catalepsy 82

ICE BAGS reduction of temperature by 559
Ileus laparotomy for 236
Iliac ligation of 686 708
Illinois anatomy act 220
  State Board of Health 364
  powers of 697
Images double determination of errors of re refraction by 284
Index medicus 28
India female physicians for 532
India rubber cloths in dressings 392
Indiana medical bill 525
Infant facial paralysis in from use of forceps 493
Infanticide 440
Infants lead poisoning in 12
  worsted truss for 212
Infectious diseases notification of 84
Inferences unjust 659
Ingals recurrent laryngitis 617
Inglis future of therapeutics 589
  address 602
Injections intra parenchymatous in pneumonia 600
Insane provision for in Tennessee 559
Insanity relation of overwork to 50
  statistics on 420
Instrument lost 168
Intestine resection of in hernia 267
Intestines laparotomy for wound of 635
Intestinal obstruction faradization in 100
  treatment of 352
Intubation of larynx 469
Inoculation yellow fever 616
Iodine in diphtheria 376
Iodoform deodorized 628
  ether in cold abscess 99
  in gonorrhœa 266
  in gout 321
Iodo glycerine injections in spina bifida 70
Ipecac in pneumonia 293
Iris coloboma of 161
  tubercle of 161
Iron perchloride injections in metrorrhagia 333
  reduced in anæmia 181
  sulphate in gastric catarrh 542
Itch naphthal ointment for 41

JABORANDI therapeutics of 450
Jackson address before Virginia State Medical Society 374
  medical licenses and honors 553
  vaginal hysterectomy for cancer 169
Jacobi address before N Y Academy of Medicine 435
James dyspepsia with neurasthenia 413
Janeway address in pathology 639
Jeffries plastic operations 136
Jenkins medical politics and the International Medical Congress 247
  necrosis of tibia and fibula 69
  is typhoid fever ever spontaneous 626
Jenks Cæsarian section 491
  care of perineum during labor 468
Jensen recovery from phthisis 510
Jequirity in lupus exedens 321
Johnson oophorectomy 464
  supra vaginal hysterectomy 637
  unilocular cyst of ovary 639
Joint disease fixation and rest in 686
July Fourth sanitary aspects of 45
Jurisprudence Medical Society of 361

KEATING lymphatic leukæmia 609
Keloid rare forms of 42
Kellogg disposal of slops and garbage 165

PAGE
Kentucky State Medical Society 23 48
Keratitis cautery in 160
Keyt, Alonzo T, cardiography 141
  obituary of 615
Kidney cystic 607
  floating, operation for 683
Kidneys primary malignant disease of 27
Kine pox description of 663
King pneumatic differentiation 670
Kipp coloboma of iris 161
  fatal ear disease 189
Kissing from a medical standpoint 328
Knapp cautery in destructive keratitis 160
  electro magnet for removal of iron from eye 160
  pseudo hypertrophic muscular paralysis 553
Knee arthrectomy of 432
  congenital malformation of 581
  floating cartilage of 673
  in diabetes 233
  joint excision of 628
  reflex in diphtheria 233
  synovitis of 673
Knight treatment of hay fever 578
Koch's bacteria laboratory 192
  method of staining 82

LABOR care of perineum during 468
  influence of intervals of on 13
  relaxation of vaginal outlet during new theory 493
Laboratory pathological at N Y polyclinic 109
Lactic acid in laryngeal phthisis 295 434
Lantanine as a febrifuge 459
Laparotomy 584
  early 262
  for gun shot wound 177 204 494 635
  for ileus 236
  for rupture of uterus 221
Larrabee diseases of children 49
Laryngitis recurrent 617
Larynx intubation of 469
  lupus of tracheotomy in 439
  syphylitic gummata of 153
Latham advances in surgery 411
Lead poisoning at sea 476
  in infants 12
  optic neuritis and ophthalmophlegia in 161
Lee blood and fat 57
  health officers 552
Leech secretion in blood for transfusion 41
Legal decision important 718
Lemon treatment of bilious fever 470
Lens dislocated operation for removal of 132
  extraction by Agnew's bident 133
    of in its capsule 133
  opacified does it ever recover transparency 583
  removal of steel from 159
Lenses trial 135
Leprosy contagiousness of 630
  recovery from 486
Leukæmia lymphatic 609
Librarian's report 715
Lieomyoma of vagina and uterus 192
Life human value of 164
Ligaments round shortening 166
Ligature changes in arteries after 604
  of large arteries 628
Lightning effects of 528
Lime hippurate of 541
Lipoma mesenteric removal of 583
Listerism 333
Lithium hippurate 541
Liver abscess of 598
  primary cancer of 608
London hospitals in 470
  School of Medicine for Women 166
Long report on bad meat from Momence 157
Lumbar abscess 505
Lung abscess of 675 696
  anomalous 607
  gangrene of 515
Lungs cirrhosis of 490
  surgery of 544
Lupus exedens jequirity in 321
  of larynx tracheotomy in 439
  treatment of by parasiticides 302
  vulgaris and tuberculosis 302
Lymphadenoma arsenic in 460
Lyon rupture of rectum 641 581

MAD DOG children bitten by 698
Magnet removal of steel from lens with 159 160
Malaria acute identity with yellow fever 625
Malarial ailments treatment of 428
  caffeine in 637
Mamma cancer of 607
Manganese oleate of 40 241

PAGE
Marcy, climatic treatment of disease 523, 701
  laws regulating practice of medicine 551
  micro organisms and surgical lesions 172
  North Carolina as a health resort 701
  rôle of bacteria in parturition 281
Marine Hospital Service changes in, 56, 84 140 196 252, 364 420, 476 504 532 560 588 644 677 718
  Surgeon General of 392
Markham cocaine in surgery 586
Marshall cocaine in dental surgery 290
  treatment of alveolar abscess 207
Martin Prof 56
  animal vaccine 663
  normal position of uterus 47
  oleate of manganese 241
  palatable therapeutics 582
Marvin primary lateral sclerosis 49
Mastoid disease 607
Materia medica, report on 408
Matthewson benzole and calomel in epithelioma 159
McCaskey geographical pathology of consumption 8 67 121
McGuire coxalgia and potts disease 408
  obscure pelvic tumor 408
McIntyre medical supervision in student life 523
McKee *intra cranial cephalhæmatoma* 385
McKenzie reflex conjunctivitis 714
McMurtry, aneurism of axillary artery 38
  ligation of subclavian 38
Meat bad disease from 157
  poisonous disease from 104
  trichinosed experiments with 333
Medical bill Indiana 525
  counsel compensation of 111
  education relation of State to 612
  News letter to Editor of 277
  licenses and honors 553
  societies how to build up 547
  studies and mental training 545
  politics 249
  supervision in student life 523
Medicine address in 456
  advances in 411
  laws regulating practice of 551
  relations of physiology to 630
  special vs general study in 414
  progress of 416
  study of 523
  what is? 523
Mello identity of yellow fever and malaria 625
Meningitis from concussion 151
Methyl chloride in neuralgia 656
Metrorrhagia injections in 333
Michigan State Board of Health 107
  Secretary vindication of 644
  health in 56 361 476 550
Microbes of mumps 246
  passage from mother to fœtus 275
  removing from water 252
Micro organisms and surgical lesions 172
  permanent specimens 82
  relation to disease 552
Microphytes action of cold on 419
Microscopical imbedding 81
Milk communication of splenic fever by 233
  papainized 376
  woman's examination of 278
Milne Edwards death of 275
Mind cure the 28
  relation of to matter 451
Mineral foods 253
Minor removal of steel from lens 159
Mississippi Valley Medical Society 224 355 385 415
Missouri State Board of Health 140
  official registry of 140
Mittendorf pneumophthalmos 160
Momence Ill report on disease at 157
Monette hystero catalepsy 82
  puerperal eclampsia 54
Montgomery bromide of ethyl 360
  large ovarian tumor 634
  oohorectomy 521
  removal of uterus for fibroid 522
  uterine polypus 360
Monument to Gen Grant 240
Moore scarlet fever 383
Morrison tylosis of hands 304
Moulton meningitis from concussion 151
Mouth gunshot wound of 417
Mullen epidemic dysentery 223
Mumps microbes of 246
Mundé electricity in gynecology 639
Murphy, Dr P J 28
Murray Mr D C death of 306
Murrell aural troubles in children 426
  determination of errors of refraction 284

PAGE
Musser cystic kidney 607
  carcinoma mammæ 607
  diabetes mellitus 607
  fœtus papyraceus 607
Mycclia from a tonsil 105
Mycosis, fungoide 305
Myoma uterine modern treatment 270
Myopia section of rectus in 134
Mutter lectures 662

NÆVUS treatment by sodium ethylate 574
Napthol, ointment for itch 41
Nares, obstruction of 617
  membranous occlusion of 148
Nasal disease causing conjunctivitis 538
  stenosis 416
Naso pharyngeal cavity neoplasms of 652
Navy Medical Department changes in 28 56 84 112 224 252 280 308 364 392 420 448 476 560 588 616, 644 672 700
Neale, axis traction forceps 446,502
Nelson microorganisms relations to disease 552
Nephritis pilocarpine in 459
  diaphoretic treatment of 323
Nephrectomy 236
Nepholithotomy 420
Nephrotomy *for suppression of urine* 638
Nerve and electric forces 225
  optic degeneration of with abnormal patella reflex 161
  vibration and excitation 113
Nervous diseases tanghin in 431
  paroxysm 366 582
Neuralgia, methyl chloride in 656
Neurasthenia dyspepsia with 413
  functional troubles dependent on 381
Neuritis optic from lead poisoning 161
Neuroses caused by urethral irritation 306
New York State Board of Health 28
  Chemist of 199
  Polyclinic Pathological Laboratory 109
  State Medical Association 336 476 612 639
    library of 639
    officers of 639
    Fifth District Branch 140 392
Norton Dr O D 476
Nose diseases remarks on 423
Nunn mineral foods 253
Nurses Charity Hospital training school for 556
  diet of in hospitals 25
Nursing women should arsenic be given to 298
Nutritive dressing of granulating surfaces 44

OBESITY gouty, tauro cholate of soda in 669
  Sée's treatment of 528
Obstetrics report on 409
Occupation *in relation* to phthisis 713
Oertel's treatment of disorder of circulation 462
Oil olive a menstruum for cocaine 162
Oils hypodermatic injection of 229
Oleates the 330
Oliver, metric test letters 134
Oophorectomy 521
  four cases 464
  for fibroid 633
  for ovaralgia 633
Ophthalmia sympathetic 145
  purulent alum in 134
Ophthalmology report on 48 430
Ophthalmoplegia from saturnism 161
Ophthalmoscope in diagnosis of brain disease 477
Orbit bony tumor of 134
Orto injections of ether in sciatica 429
Osler hydatid tumors of brain 83
Osteoma from a tooth 105
Otitis *media* chronic treatment of 188
  relation to rhinitis 189
Otology report on 48 439
Ovaralgia oophorectomy for 633
Ovarian cyst rupture during coition 54
  cystoma with phlegmasia alba dolens 330
  large 634
  par cysts 339
  tumor polycystic 332
Ovaries removal of fibroid 522
Ovariotomy 242
  double 243
  first in Hong Kong picture of 584
Ovary unilocular cyst of 639

PACKARD anomalous lung 607
  International Medical Congress 247
Paine subserous fibrous tumor 197
Pancreas cysts of treatment of 73 337 365
Papainized milk 376

PAGE
Paraffin imbedding in 1
Paraldehyde 11
Parallax determination of errors of refraction by [illegible]
Paralysis different forms of in children 5
  facial in infant from use of forceps 401
  motor in herpes [illegible]
  pseudo hypertrophic muscular 551
  general prodromal period 5[illegible]5
Paraplegia syphilitic 330
Paris wash house of [illegible]
Parke laparotomy for gun shot wound 401
Parkes ovariotomy 24
  case requiring Battey s operation 13
  double ovariotomy 43
  sponge removed from uterus 41
Parotitis after operation on genital 407
Parthenine 153
Parturition role of bacteria in 51
Parvin paralysis in infant from forceps 403
Patella abnormal in optic nerve degeneration 161
  fractured instrument for 584
  reflex increase of in spinal ataxia 480
  wiring 556
Pasteur work in hydrophobia [illegible]
Pathology address in [illegible]
Pattee nerve vibration 113
Peat moss as a dressing [illegible]
Pear on pathological changes in dysentery 357
Peck rupture of ovarian cyst during coition 54
Pediatric aphorism 348
Pelvic tumor [illegible] cure 408
Pennsylvania registration law [illegible]
  State Board of Health 56
People feeding the 166
Pepsin action on digestion 639
  in gastric juice [illegible]
Pericardium aortic aneurism rupturing into [illegible]
Perineal section without a guide 355
Perineum care of during labor 468
  laceration of 175 248
  rupture of [illegible]
Phalanges of index finger deviation of 639
Pharmacology progress of 260
Philadelphia Academy of Surgery 584
  College of Physicians 584
  Obstetrical Society [illegible] 358 [illegible] 609 633
  Pathological Society 584
Physiology relations to medicine 630
Phlegmasia alba dolens 350
Phthisis acute recovery 510
  arrest of 654 697
  cases cured 546
  causes of predisposing 713
  climatic treatment of 180 183
  diazo reaction in 543
  geographical pathology of 8 67 1[illegible]1
  conditions of curability of 17
  hygienic and climatic treatment 180 183
  laryngeal lactic acid in 434
  transmission of [illegible]11
Physicians female for India 53[illegible]
Pianists digital tenotomy for [illegible]68 470
Pierson International Congress Committee 83
Pilcher words and their uses 586
Piles hypodermic injection of 516
Pilocarpine in nephritis 459
  in datura poisoning 402
  influence of on sweat secretion 542
Placenta prævia [illegible]31 363
Plastic operations, without pedicles 1[illegible]6
Plymouth recent epidemic at 437
Pneumatic differentiation 125 506 510 517 539 670
  process influence on circulation 591
Pneumococcus of Friedlander 23[illegible]
Pneumonia discussion on before N Y State Medical Association 612
  fatality of 489 671
  intra parenchymatous injections in 600
  ipecac in 293
  points on 393
Pneumophthalmos 160
Poisoning by cocaine 430
  from canned foods 75
  lead 12 161 476
Port wine marks electrolysis in 303
Porter errors in physical diagnosis 345
Potassium bromide and iodide new method of giving 293
Pott s disease 408
Potter acute pelvic abscess 36
Powell carcinomatous affections of digestive organs 411
Pregnancy extra uterine sac of 609
  new sign of 518
  quadruple 167
  vomiting of tube feeding in 544
Presbykousis 190

PAGE
Prescription ownership of 46
Presentation arm expulsion of fœtus in 574
Presentation face and brow 14
Prince spinal ataxia without loss of sensation 180
Prizes honor 531
Profession latent talent in the 435
Propeptone 3[illegible]0
Proprietary medicine statement of constituents 13
Pruritus vulvæ operative treatment 154
Psammoma of 4th ventricle 635
Psoriasis [illegible] points in etiology of 303
  note on [illegible]73
Ptomaines in cholera dejecta 171
Ptosis lipomatosis 159
Puerperal diphtheria 433
  fever 357
  inflammation relation of bacteria to 55[illegible]
  septicæmia 110
Pulmonary disease treatment of pneumatic differentiation 1[illegible]5 506 510 517 539
Pulmonic surgery [illegible]61
Purdy Dr action of N Y Academy in case of 698
  symptoms and management of renal disease [illegible]86
Pyridine 50

Quinine amaurosis 16[illegible]
  hydrobromate in malaria 657

RABUTEAU death of 700
Rags disinfection of 2[illegible]1
Ransohoff urethral calculi 65
Ray wound of eye ball 49
Rectum cure of cancer of 21[illegible]
  excision of for epithelioma 1[illegible]7
  irritable 441
  rupture of 541 581
Reece tubeless tracheotomy 5[illegible]9
Reed hydatid tumors in brain 1 195
Reeve address before American Public Health Association 645
Refraction apparatus for showing 134
  determination of errors of 284
  1000 cases 134
Renal diseases symptoms and management 286
Respiratory centre 178
Rest and effort 344
Retinitis neuro albuminurica 150

REVIEWS

Abercrombie students guide to medical jurisprudence 28
Anstie neuralgia and the diseases that resemble it 54
Bermingham practical therapeutics 643
Cheyne antiseptic treatment of wounds 139
Churchill face and foot deformities 699
DeWolf report of Department of Health Chicago 250
Dolby technology of bacteria investigation 278
Foster text book of physiology 251
Friedlander the microscope in clinical and pathological examinations 700
Garratt myths in medicine 55
Gibbs histology and pathology 715
Gowers diagnosis of diseases of the brain 645
Lusk science and art of midwifery 715
McKenzie hay fever 249
Oliver C A correlation theory of color perception 251
Oliver G bedside urine testing 111
Pepper system of practical medicine 223 642
Physician s visiting list 700
Ralfe diseases of the kidneys 335
Thompson stricture of the urethra 139
Walker anatomy physiology and hygiene 363
Wurtzburg proceedings of Physico Medical Society of 550

Reynolds report on ophthalmology 48
Rheumatism salicylic acid in 322
Rhinitis chronic relation to chronic otitis 189
Rib fracture of by sneezing 512
Risley coloboma of choroid 161
Roberts tumor of hand 608
Robin Charles death of 476
Robinson mycological studies in tinea 303
  treatment of coryza 105
Rocky Mountain Medical Association 81
Roler Dr E O F 84
Roosa extraction of lens in capsule 133
  presbykousis 190
Russia cholera precautions in 28
Russian alienists 420
Rust etiology of zymotic diseases 412

PAGE
SALICYLIC ACID in rheumatism 3[illegible]2
Salmon virus of hog cholera 693
Sanitary aspects of fourth of July 45
  Congress national 528
  convention at Ypsilanti 164
  problems of New York 361
  report Dr Edson s 109
Sanitation health results from 245
Sarcoma chemical test for 185
  of skin multiple 20
  peptone in blood in 177
Sawyer relation of mind to matter 451
Sayre treatment of spondylitis 639
Scarlatina 383 406
  uroglaucine in urine in 577
School buildings and grounds 165
School over pressure in 276
Sciatica injections of ether in 429
Science sport versus 488
Sclerosis primary lateral 19
Seely treatment of internal strabismus 135
  treatment of otitis media 188
Senn Dr N 84
  cysts of pancreas 337 365
Sepsis practice after exposure to 5
Septicæmia puerperal 410
Serre nœud new 556
Sewerage relation to death rate 166
Sewers deodorization of 276
Sexton conversation tube for deaf mutes 189
  inflammation of the attic of the tympanum 187
Shakespeare Dr E O 420 472
Shaler Gen 698
Shattuck multiple sarcoma of skin 20
Shibley treatment of malarial ailments 428
Shields tracheotomy in lupus of larynx and diphtheria 439
Shipman address in medicine 456
Shock treatment of 323
Shoemaker hypodermatic injection of oils 229
  International Congress 5[illegible]2
Sibbell study of medicine as a means of education 523
Silver nitrate in spinal irritation 3[illegible]3
Sinclair special study in medicine 414
  sun blindness 483
Sinkler paralysis in young children 520
Sinuses frontal abscess of 133
Skin and Cancer Hospital 306
  diseases of children castor oil in 96
    relation of asthma to 708
  multiple myomata of 304
  structure of 304
Skull fracture of 388
    with depression 499
  hydatid cysts of base 485
  prehistoric at Grenoble 471
Small pox 71[illegible]
  and vaccination 510
Smith relations of water supply and sewerage to death rate 160
  treatment of pulmonary diseases by pneumatic cabinet 539
  dry dressings 534 549
Sneezing causing fracture of rib 512
Snodgrass Dr J H obituary of 391
Society medical how to build up 547
Sodium ethylate in nævus 547
  taurocholate in gouty obesity and dyspepsia 669
Spain cholera in 55 246
  deaths from cholera in 140
Sphincter ani division of in coloproctitis 65
Spina bifida iodo glycerine injections 70
Spinal ataxia without loss of sensation 480
  irritation nitrate of silver in 323
Spine caries of treatment 639
  periostitis of 515
  fracture of 544
Spleen rupture of 205
Splenic fever communication of by milk 235
Splint new for fracture of humerus 698
  steadle for fracture of thigh 658
Spondylitis treatment of 639
Sponge grafting and dressing 657
Sport vs science 488
State medicine 309
  relation to medical education 612
St Bartholomew s Hospital cholera beds in 276
Standish tubercle of iris 161
Starvation deaths from 166
Sterility operation for cure of 127
Stomach dilatation of in children 295 [illegible]
Strophanthus
Strychnine in post partum hæmorrhage
  poisoning wild cherry and chloroform
Student life medical supervision in
Studies medical and mental training

PAGE
Strabismus correction of 135
  internus treatment of 135
Subclavian ligation of 38
Suffolk District Medical Society 10, 75, 553, 578, 663, 697
Sugar dressings 543
  in blood in carcinoma 708
Suicide psychological aspects of 440
Sun blindness 483
  light, effect on bacillus anthracis 471
Sunstroke treatment of 584
Suppuration after rupture of articular lesions 235
Surgery abdominal 389
  rare cases in 466
  advances in 411
  cocaine in 586
  conservative in articular tuberculosis 13
  electrolysis in 499
  gynecological and abdominal in Europe 495
  pulmonic 261
  veterinary 432
Surgical anatomy and practice 499
Sutcliffe, perineal section without a guide 355
Sutton modification of Emmett s operation 497
Sutures buried substitutes for 584
Sweringen laceration of perineum 173
  placenta prævia 231
Synovitis of knee 673
Syphilide tuberculo ulcerative 272
Syphilis alterations of lymphatics in 99
  and tabes 182
  bacteria of 271
Syphilitic aphasia 330
  diseases of placenta and cord 182
  disorders cocaine in 350
  re-infection 379
  gummata of larynx 153

Tabes in women 377
Tænicide glycerine as a 12
Talent latent in the profession 435
Tanghin in nervous diseases 431
Tarnier's forceps use of 491
Tatum advances in medicine 411
Taylor report on ophthalmology 409
  syphilitic reinfection 329
Temperature of abdominal wall in infantile enteritis 603
Temperature reduction by ice bags 559
Ten Brook Dr John death of 196
Tenement house inspection 109
Tennessee provision for insane in 559
Tenotomy digital for pianists 368, 470
Tension intra ocular variations 159
Tetanic spasms in periostitis of spine 515
Tetanus 399, 415
Thallin 40
  antithermic properties of 627
Therapeutics 582
  bacterial 403
  future of 589
  progress of 269
Thigh fracture of steadle splint in 658
Thomas cocaine in gynecology 634
Thompson exophthalmic goitre 507
  hypodermic use of cocaine 668
  presidential address 23
Throat diseases remarks on 473
Tibia and fibula necrosis of 69
  removal of 513

PAGE
Tiegel, influence of pneumatic differentiation on circulatipn 591
Tiffany, sympathetic ophthalmia 145
Tilden mycrosis fungoide 305
Tilley, aspergillus glaucus 105
  osteoma from a tooth 105
  mycelia from a tooth 105
Tinea mycological studies in 303
Tonsillitis 694
Tracheotomy in lupus of larynx and diphtheria 439
  in croup 440
  tubeless 529
Transfusion auto in cerebral anæmia 463
  leech secretion in blood for 41
Trichinosed meat experiments with 333
Trocar new 231
Truss worsted for infants 212
Tubercle bacilli staining 82
Tuberculosis, articular surgery of 13
  aspiration a cause of spread of 370
  laryngeal lactic acid in 295
  relations to lupus vulgaris 302
Tumor bony of orbit 134
Tumors malignant citric acid in 200
Turnbull artificial anæsthesia 529
  bromide of ethyl 561
Turner medical evidence 551
Tylosis of the hands 304
Tympanum inflammation of attic of 187
Typhlitis recurrent 72
Typhoid fever ammonia treatment of 404
  eucalyptol in 11
  is it ever of spontaneous origin 606
  new method of giving baths in 349
Typho malarial fever 418

University of Pennsylvania 51
  veterinary department 172
Urethral irritation causing neuroses and acne 306
  stricture 356
    gonorrhœal 357
    perineal section for 355
Urethrane as a hypnotic 459
Urine normal toxicity of 215
  suppression of nephrotomy for 658
  uroglaucine in in scarlatina 577
Uroglaucine in urine 577
Uterine dilator 358
  displacements shortening the round ligaments for 166
  fibroid polypus 360
  flexures treatment by intra uterine stem 258
  myoma treatment of 270
  suture without resection 707
Uterus unicornis 205
  fibroid of oophorectomy for 633
  leiomyoma of 192
  normal position of 47
  removal of for fibroid 522
    by hysterectomy 637
  rupture of laparotomy for 221
  sponge removed from 415

Vaccination anti league 556
  small pox and 519
  value of 669
Vaccine animal Martin on 663
Vagina relaxation of, during labor 493
Varicella, inoculability of 639

PAGE
Varices, excision of 686
Varicocele treatment of 499
  by wire loop 378
Vaughan water supply 166
Venesection, in pneumonia 612
Ventilator, new 669
Ventricle fourth tumor of 635
Vermiform appendix calculus of 42
Vessel wounds auscultation signs in 573
Veterinary Department of University of Pennsylvania 472
  surgery 432
Vesical ano centre localization of 128
Virchow battle of cells and bacteria 216
Virginia State Medical Society, 224, 270, 383, 406, 437
  Board of Medical Examiners 383
Volkmann Prof 28

Wadsworth, optic neuritis and ophthalmoplegia, from saturnism 161
Walker, puerperal fever 3 7
Warren, changes in arteries after ligature 604
Washington Obstetrical and Gynecological Society 504
Water hot douche in colo proctitis 63
  intra capsular injection of in cataract extraction 573
  removing microbes from 252
  supply 166
  relation to death rate 166
Waxham intubation of larynx 460
Webster removal of lens 133
Weigert s double stain 82
  angioma pigmentosum 274
Wells death rate of pneumonia 671
  pneumonic abcess 67, 606
White diseases of the ear nose and throat 423
  infantile diabetes 23
  treatment of lupus 302
  Alleghany Springs Virginia 383
Wight prevention of communicable diseases 165
Wilbur school at Kalamazoo 252
Willard Parker Hospital 698
Willets value of human life 164
Williams rest and effort 344
  quinine amaurosis 162
Wine port in gout 578
Wire loop in treatment of varicocele 378
Wiring bones new method 431
Wisconsin State Medical Society 162
Woman s Medical College of Philadelphia 51
Women London school for 160
Women tabes in 377
Woolen nasal stenosis 416
Words and their uses 586
Work over relation to insanity 50
  shops commissioners in 714
Wragg W T obituary of 83
Wright case of brain disease 649
Wyman fracture of rib by sneezing 512

Yellow fever inoculation 666
  identity with acute malaria 625
Ypsilanti sanitary convention at 164

Zinke Emmet s operation 85
Zymotic diseases etiology of 412